

DIVISION OF
VOCATIONAL EDUCATION
PART-TIME EDUCATION SERIES
6, 7, 8, 9, 10

1921 - 1922



Class LC5252

Book C2C35

California University School of Education

DIVISION OF
VOCATIONAL EDUCATION

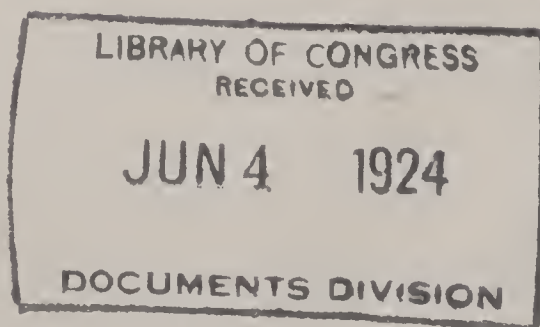
PART-TIME EDUCATION SERIES

6, 7, 8, 9, 10

1921-1922

10

LC 5252
.C2C35



CONTENTS

PART-TIME EDUCATION SERIES, No. 6. An Analysis of Clerical Positions for Juniors in Railway Transportation.

PART-TIME EDUCATION SERIES, No. 7. Selected Reading List for Administrators and Teachers in Part-time Schools.

PART-TIME EDUCATION SERIES, No. 8. Part-time and Continuation Schools Abroad—Reprints.

PART-TIME EDUCATION SERIES, No. 9. Recreational Reading for Part-time and Continuation Schools.

PART-TIME EDUCATION SERIES, No. 10. The Work of Juniors in the Telegraph Service.

No. 6-10

UNIVERSITY OF CALIFORNIA
DIVISION OF VOCATIONAL EDUCATION
RESEARCH AND SERVICE CENTER
FOR
PART-TIME SCHOOLS

AN ANALYSIS OF
CLERICAL POSITIONS FOR JUNIORS
IN RAILWAY TRANSPORTATION

By R. E. BERRY

ISSUED BY
THE UNIVERSITY OF CALIFORNIA
IN COÖPERATION WITH
THE STATE BOARD OF EDUCATION

BERKELEY, CALIFORNIA
AUGUST, 1921

FOREWORD

This is the third of a series of studies of junior positions in commercial occupations, made by the Research and Service Center of the Division of Vocational Education. The study includes an analysis of the clerical work of junior employees in twenty positions in the general offices of the Southern Pacific Company, San Francisco. The analyses as presented in the bulletin will not only be useful to those who are engaged in the education of young workers in railroad offices, throughout the state, but will be suggestive to teachers of youths employed in similar fields as a guide in making similar studies in other fields of employment.

The data for this bulletin were collected by Mr. R. E. Berry, Associate Professor of Commerce in the University of Wyoming, on leave of absence. The study was directed and edited by Miss Emily G. Palmer, Special Agent for Training Part-time Teachers, University of California.

ROBERT J. LEONARD,

Director, Division of Vocational Education, University of California.

CONTENTS

	PAGE
Introduction.....	6

PART ONE

ANALYSIS OF CLERICAL POSITIONS

FOUR POSITIONS COMMON TO MANY DEPARTMENTS.

Messenger.....	11
I. General Facts Concerning the Job.....	11
II. Duties.....	11
III. Required Knowledge Arranged in Instructional Units.....	12
IV. Promotional Possibilities.....	14
Office Boy.....	15
I. General Facts Concerning the Job.....	15
II. Duties.....	15
III. Required Knowledge Arranged in Instructional Units.....	17
IV. Promotional Possibilities.....	19
File Clerk.....	20
I. General Facts Concerning the Job.....	20
II. Duties.....	20
III. Required Knowledge Arranged in Instructional Units.....	21
IV. Promotional Possibilities.....	22
Stenographer.....	23
I. General Facts Concerning the Job.....	23
II. Duties.....	23
III. Required Knowledge Arranged in Instructional Units.....	24
IV. Promotional Possibilities.....	24

THREE POSITIONS CONNECTED WITH THE PASSENGER SERVICE

Ticket Stock Room Clerk.....	25
I. General Facts Concerning the Job.....	25
II. Duties.....	25
III. Required Knowledge Arranged in Instructional Units.....	28
IV. Promotional Possibilities.....	30
Advertising Stock Room Clerk.....	30
I. General Facts Concerning the Job.....	30
II. Duties.....	31
III. Required Knowledge Arranged in Instructional Units.....	33
IV. Promotional Possibilities.....	35
Junior Claims Clerk.....	36
I. General Facts Concerning the Job.....	36
II. Duties.....	36
III. Required Knowledge Arranged in Instructional Units.....	39
IV. Promotional Possibilities.....	40

POSITIONS CONNECTED WITH THE FREIGHT SERVICE	PAGE
Junior Waybill Clerk.....	41
I. General Facts Concerning the Job.....	41
II. Duties.....	41
III. Required Knowledge Arranged in Instructional Units.....	42
IV. Promotional Possibilities.....	44
THREE POSITIONS CONNECTED WITH THE AUDITING OF PASSENGER ACCOUNTS	
Sorter of Local Tickets.....	45
I. General Facts Concerning the Job.....	45
II. Duties.....	45
III. Required Knowledge Arranged in Instructional Units.....	46
IV. Promotional Possibilities.....	47
Ticket Sorter and Checker (Home Interline Bureau).....	48
I. General Facts Concerning the Job.....	48
II. Duties.....	48
III. Required Knowledge Arranged in Instructional Units.....	51
IV. Promotional Possibilities.....	53
Tally Clerk (Foreign Interline Bureau).....	54
I. General Facts Concerning the Job.....	54
II. Duties.....	54
III. Required Knowledge Arranged in Instructional Units.....	58
IV. Promotional Possibilities.....	60
FOUR POSITIONS CONNECTED WITH THE AUDITING OF FREIGHT ACCOUNTS	
Carbon Clerk.....	61
I. General Facts Concerning the Job.....	61
II. Duties.....	61
III. Required Knowledge Arranged in Instructional Units.....	62
IV. Promotional Possibilities.....	63
Waybill Arranging Clerk.....	63
I. General Facts Concerning the Job.....	63
II. Duties.....	63
III. Required Knowledge Arranged in Instructional Units.....	65
IV. Promotional Possibilities.....	66
Checking Clerk (Tracing Bureau).....	67
I. General Facts Concerning the Job.....	67
II. Duties.....	67
III. Required Knowledge Arranged in Instructional Units.....	69
IV. Promotional Possibilities.....	71
Junior Clerk in Rechecking Bureau.....	72
I. General Facts Concerning the Job.....	72
II. Duties.....	72
III. Required Knowledge Arranged in Instructional Units.....	74
IV. Promotional Possibilities.....	76
TWO POSITIONS CONNECTED WITH THE TREASURY DEPARTMENT	
Assistant Indemnity Bond Clerk.....	77
I. General Facts Concerning the Job.....	77
II. Duties.....	77
III. Required Knowledge Arranged in Instructional Units.....	78
IV. Promotional Possibilities.....	79

	PAGE
Distribution Clerk.....	80
I. General Facts Concerning the Job.....	80
II. Duties.....	80
III. Required Knowledge Arranged in Instructional Units.....	82
IV. Promotional Possibilities.....	83

THREE POSITIONS NOT OPEN TO JUNIORS

Manifest Clerk (General Freight Office).....	84
I. General Facts Concerning the Job.....	84
II. Duties.....	84
III. Required Knowledge Arranged in Instructional Units.....	85
IV. Promotional Possibilities.....	85
Indemnity Bond Clerk (Treasury Department).....	86
I. General Facts Concerning the Job.....	86
II. Duties.....	86
III. Required Knowledge Arranged in Instructional Units.....	87
IV. Promotional Possibilities.....	87
Garnishment Clerk (Treasury Department).....	88
I. General Facts Concerning the Job.....	88
II. Duties.....	88
III. Required Knowledge Arranged in Instructional Units.....	90
IV. Promotional Possibilities.....	90

PART TWO

SUGGESTIVE TEACHING MATERIAL

Background Topics.....	91
Corporations.....	91
Economics and Geography.....	91
Transportation Charges.....	92
Railroad Regulation.....	92
Business Law.....	93
Related History.....	94
Railroad Documents.....	94
Growth of Large Railroad Systems.....	94
Local Railroad Development.....	94
Biographies of Well-known Railroad Men.....	94
The State Industrial Welfare Commission.....	95
The State Industrial Accident Commission.....	96
Health and Hygiene.....	96
Business Ethics and Decorum.....	96
Citizenship.....	96
Sample Lesson Plans.....	97
I. The Shipping Order and Waybill.....	97
II. Geography.....	98
III. The Passenger Ticket.....	98
IV. Correspondence.....	99
V. Law.....	100
VI. The Corporation.....	100
VII. Transportation Charges.....	102
Railroad Transportation Terms.....	103
Books and Magazines.....	104

INTRODUCTION

The development of the Western States of this country is due largely to the transportation facilities offered by the railroads. Both the economic and political development of the Western region has been immeasurably influenced by the transportation facilities.

The work involved in the service of transportation is scarcely realized by the purchaser of a railroad ticket or the holder of a bill of lading. In the division offices of a railroad hundreds of clerks must check, sort, trace, classify, study, interpret, and file the records necessary for every transaction. Among the clerks so employed there are many girls and boys between the ages of fifteen and twenty.

The study of clerical work included in this bulletin was undertaken for the purpose of giving teachers and others interested in the education of employed youths detailed information in regard to the work performed by junior clerks in the general offices of a large railroad and in regard to the training necessary for their work.

For several reasons it was decided to limit the study to junior clerical positions in the Southern Pacific Railroad offices; in the first place, the company is large and has a typical railroad organization; in the second place, it employs many boys and girls between the ages of fifteen and twenty; and in the third place, all of its central administrative offices are located in one city.

The analyses of the various junior positions were made by consulting with officials and heads of bureaus, by observing and questioning workers, and by a limited amount of actual participation in the work. The analyses were then revised and corrected by further observation and conference. The courtesy and coöperation of the officials and employees of the Southern Pacific Company made the study possible.

RAILROAD ORGANIZATION

A railroad company, like other corporations, is owned by its stockholders, often numbering as many as fifty thousand, who elect a board of directors to control the corporation for them. The board of directors in turn elects a president, various vice-presidents, a secretary, a treasurer, a general auditor, and a legal counselor. These officials are necessary in any corporation, no matter what the nature of its business.

The fact that the corporation is a railroad company makes necessary a special organization, within the general organization, to perform the functions of transportation. The special part of the railroad organization which is concerned directly with transportation is divided into two large departments, the Operating Department and the Traffic Department, each of which is divided into several branches for purposes of efficient administration.

The Operating Department, under the General Manager, has various subsidiary departments. The Roadway Department, one of these subsidiary departments, provides and maintains in good condition the roadway and all physical property connected with the line. The Machinery Department, another branch department, provides and maintains locomotives and cars for traffic. The Transportation Department performs the work of moving passengers and freight.

The Traffic Department conducts the financial and business affairs of the railroad company. It classifies traffic, determines charges, handles claims of passengers and shippers, solicits business and endeavors to increase the traffic and earnings of the company. This work is under the supervision of a Freight Traffic Manager, a Passenger Traffic Manager, and a Mail Traffic Manager. The first two of these officials are assisted by a General Freight Agent and a General Passenger Agent, respectively.

A railroad requires a great variety of supplies for the operation and maintenance of its trains, roads and other physical property. For the purchase and distribution of these supplies it has a Purchasing Department, in charge of a Purchasing Agent. Under the Purchasing Agent are a General Storekeeper and various District Storekeepers, who keep the supplies of the railroad and distribute them upon the presentation of properly authorized requisitions.

Under the Auditor are four departments in charge of the following officials, the Auditor of Freight Accounts, the Auditor of Passenger Accounts, the Auditor of Disbursement Accounts, and the Auditor of Miscellaneous Accounts, whose duties are indicated by their titles.

JUNIOR POSITIONS

Four of the junior positions analyzed in this bulletin—namely, Messenger, Office Boy, File Clerk, and Stenographer, are in many departments; hence in each case the list of duties as presented is a composite of the duties performed in several offices.

The remaining thirteen junior positions which are analyzed in this bulletin are located in the various departments and offices as

follows: in the Passenger Traffic Department—Ticket Stock-room Clerk, Advertising Stock-room Clerk, and Junior Claims Clerk; in any large Freight Office—Junior Waybill Clerk; in the department under the Auditor of Passenger Accounts—Sorter of Local Tickets, Sorter and Checker of Home Interline Tickets, and Tally Clerk in the Foreign Interline Bureau; in the department under the Auditor of Freight Accounts—Carbon Clerk, Waybill Arranging Clerk, Checking Clerk, and Junior Clerk in the Rechecking Bureau; in the Treasury Department—Assistant Indemnity Bond Clerk and Distribution Clerk.

Lastly, three positions are analyzed, being typical of a number to which juniors might be promoted. They are as follows: Manifest Clerk in the General Freight Office, Indemnity Bond Clerk and Garnishment Clerk, both in the Treasury Department.

THE ORGANIZATION OF THE STUDY

Part One of the bulletin contains analyses of the twenty positions just mentioned. The analysis of each job is divided into sections as follows: I. General Facts Concerning the Job; II. Duties; III. Required Knowledge Arranged in Instructional Units; and IV. Promotional Possibilities.

Section I of each analysis contains a number of facts about the occupation including a statement as to the department and bureau in which it is found, the approximate length of time required to learn the duties, and the necessary qualifications for undertaking the work.

Section II contains a detailed, classified list of the regular duties of the worker while on the job; in a few instances occasional duties have also been listed. A large volume of work in the railroad offices has to be done on schedule time. It has therefore been necessary to assign each worker certain regular tasks to which he usually devotes his entire time. Often several clerks will be occupied with the same work, dividing it by mutual agreement or as directed by the head clerk. In such cases, where a number of clerks were found employed on the same job, the analysis has been made as though one clerk were performing all the duties.

By a study of each duty or task connected with an occupation the requisite knowledge on the part of the worker was determined. Section III contains a statement of this body of knowledge, arranged in blocks or units of instruction. These instructional units have been divided into two groups: (1) Direct Value Units and (2) Supplementary Units. The Direct Value Units are those elements of knowl-

edge required for the efficient performance of the duties connected with the job; the Supplementary Units are subjects which will give the worker a broader view of his job, a deeper insight into the relation of his work to that of the department, and a clearer understanding of the reasons back of the particular work in which he has a share.

Section IV suggests promotional possibilities for the worker. The lines of promotion named in each case are merely a few of the many lines which might be followed. In departments consisting of several bureaus, promotion may come either by advancement to a more remunerative position in the same bureau, or by transfer to a better position in any one of the other bureaus in the department. Promotion is usually within the department in which the worker begins his service. There are, however, exceptions to this rule, and in some cases promotion will be from one department to an entirely different department. By consulting Section III of the job next in the line of promotion, the units of training necessary to prepare for advancement to that job may be found.

There is comparatively little opportunity for advancement for girls in railroad work aside from that connected with typewriting, stenography, comptometry, and other machine work. But for the boy who has initiative, is willing to work and learn, and who will "keep his eyes and ears open," there are many opportunities for advancement to important and responsible positions. Even the young man who has in mind a career in the field of commerce or industry will find the training received in a railroad office of great preparatory value.

Part Two of the bulletin lists topics for discussion and instruction in regard to railroad transportation. Topics of two kinds are suggested for study, those which are intended to give the worker a wider knowledge of the railroad business as a service to the country and as a factor in its development, and those which are intended to show the worker his responsibility as a wage earner and as a citizen. A list of railroad topics, related history, related citizenship and health topics, questions of business ethics and decorum, and related economics and geography, a list of transportation terms, sample lesson plans, and a reading list of books and magazines dealing with the question of railroad transportation are among the topics included as Background Teaching Material.

THE PURPOSE OF THE STUDY

A large number of boys and girls at present engaged in clerical work in railroad offices, come under the part-time act; for this reason the bulletin is written with the hope that vocational counselors, coördinators, and teachers will find the study helpful. Counselors will find it useful when advising with boys and girls who may wish to enter upon railroad clerical work. Part One of the bulletin will give them a detailed picture of the entering jobs and indicate some of the qualities necessary for success.

Coördinators in part-time or evening schools will find the study a source of information as to the exact nature of the work performed by juniors in the offices of railroad companies. After visiting the offices and adding to or altering the analyses to suit changed conditions, and after consulting with the railroad officials in regard to the part of the instruction which may be given best by the school, they will be in a position to help teachers in their efforts to correlate instruction with the occupation.

The teacher will find listed the instructional units for training a young worker in his present position with the company or in preparing him for promotion. Practice in railroad offices is changing more or less all the time, therefore the list of duties and the necessary instruction must be kept up to date. To make it possible to change the list of duties and the corresponding instructional units, spaces have been left for additional material at the end of each section of each of the analyses. With a background of experience in railroad office work, the teacher will be able to interpret the analyses in the light of his experience and develop the instructional units into a series of lesson plans such as are suggested in Part Two.

Unless the teacher is training a young employee for work in a particular office he will probably find the greater part of the instructional material listed under the Supplementary Units and the Background Topics. Much of the knowledge of direct value must be gained on the job. However, the schools may give much instruction which will be of profit to the youth both as a present or prospective employee of the railroad and as a citizen.

With a spirit of coöperation and assistance between the school authorities and the railroad companies, much could be done to prepare young workers for employment with railroad companies, to increase the efficiency of workers already in the employ of the company, and to help prepare them for promotion.

PART ONE

ANALYSIS OF CLERICAL POSITIONS

MESSENGER

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: various departments in railroad offices.

Length of learning period: two weeks to a month.

Entrance requirements:

Age: fifteen years or older.

Sex: male.

Special skill or training: none.

Personal qualifications: dependability, promptness, alertness, courtesy, willingness to work.

Educational qualifications: grammar school.

II. DUTIES

(As outside messenger.)

At stated hours during the day, collect the outgoing mail from the various desks in the office.

Sort this mail according to the route to be travelled.

Put mail in bundles in bag or satchel, in the order of the places to be visited.

Take mail to the proper offices and to the proper officials in these offices, following a certain route and maintaining a certain time schedule.

Collect, at each place visited, mail for own office and for other offices on the route.

Distribute mail to the proper desks in own office.

(As inside messenger.)

At stated hours during the day, or when told to do so, take mail-carrying box and collect, from baskets on each desk, mail for other offices in the building.

Place the mail for each office in the box under a loose cardboard index indicating the office to which, or the person to whom, the mail is to be taken.

Distribute the mail and at the same time collect at each office visited, mail for the office from which the messenger started.

Distribute the mail belonging in the messenger's own office.

Put the mail delivery box away in the proper place.

Attend to sending, receiving, and delivering mail to and from the central mailing bureau.

(Other clerical duties.)

Insert carbon sheets between the original and duplicate copies of various forms used in the office.

Place these in neatly arranged piles and take them to the clerk who is to use them.

Copy simple forms either on a typewriter or with pen or pencil.

Do errand work for head clerk or other officer.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The company.

Names of the company officials.

The various departments of the company and their location.

The department.

Names of the department officers and employees, and the location of their desks.

The nature of the work in the department and its allotment to various bureaus.

The relation of the business of the department to that of other departments.

Delivering outside mail.

The location of the various buildings or offices to be visited.

The route to be followed.

The numbering system of the city.

The time schedule to be observed.

The importance of getting certain mail to its destination on time.

The number of trips to be made daily.

Handling mail in the office.

How to carry the mail conveniently and securely.

The importance of sorting the mail carefully.

How to sort the mail rapidly.

How to arrange the mail in bag, satchel, or box for speed and convenience in delivering.

How to operate the mail tubes to the mailing bureau.

What mail should go to the central mailing bureau.

What mail can not be sent through the tubes.

What mail to collect and deliver at certain hours.

The inconvenience caused by wrong deliveries of mail.

Office clerical work.

The various forms and blanks used in the office; their significance; what information they contain; how to fill them out.

Where the office supplies are kept.

How to insert carbon sheets neatly between original and duplicate copies.

How to operate typewriter. (Not necessary but helpful.)

(Space left for additions.)

Supplementary Units

The forms handled.

The general nature of the forms carried from one place to another.

The importance of the more common forms used in the office.

Local geography.

The name and location of the more important streets of the city.

The numbering plan of the city.

The location of the more important firms with which the company has business relations.

The routes of the principal street car lines of the city.

How to locate any given street with the aid of a map, the quickest route to the given address.

Business courtesy. See page 18.

English.

Oral English in addressing business associates.

The vocabulary of railroad terms, their meaning, use, pronunciation, spelling. See list, page 103.

Business writing.

The necessity for legibility and neatness in railroad records.

The part good penmanship plays in promotion.

The large amount of transportation records written with pencil.

How to write neatly and legibly.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the messenger, four of which are suggested below. The units of training which are necessary in preparing a messenger boy for promotion to a given job may be found by consulting Section III of the analysis of that job.

1

One line of promotion

From messenger to:

- (a) Office boy.
- (b) File clerk.
- (c) Head file clerk.

2

Another line of promotion

From messenger to:

- (a) Office boy.
- (b) Stenographer.
- (c) Assistant secretary to an official.
- (d) Secretary to the same official.

3

Another line of promotion

From messenger to:

- (a) Office boy.
- (b) Clerk in a bureau other than the filing bureau.
- (c) Head clerk of the same bureau.
- (d) Assistant chief clerkship.

4

Another line of promotion

From messenger to:

- (a) Office boy.
- (b) File clerk.
- (c) Clerk in a more important bureau.
- (d) Head clerk of the same bureau.
- (e) Assistant chief clerk of the department.
- (f) Chief clerk of the same department.

OFFICE BOY

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: railroad offices—all departments.

Length of learning period: about two months.

Entrance requirements:

Age: fourteen to eighteen.

Sex: male.

Special skill or training: none.

Personal qualifications: accuracy, neatness, promptness, courtesy.

Educational qualifications: grammar school.

Nature of the work:

The position of office boy or junior clerk is an entering position. The boy taking such a job is usually without previous experience. He is expected to act as messenger and errand boy for others in the office. Frequently he has a desk in the outer office where he can meet visitors and take their cards to the proper officials. He acts as mail carrier between his office and the central mailing bureau. In most offices he is expected to assist the file clerks and familiarize himself with the filing system used in the office. In many offices there are a number of such office boys, each with certain duties to perform. This analysis makes no separation of such duties between different office boys, since in the smaller offices one boy may perform all of them.

II. DUTIES

(As mail boy.)

Each morning when coming on duty, and at stated times during the day, bring the incoming mail from the mail room to the office.

Sign for the registered mail.

Sort all mail according to the office personnel.

Open all envelopes and remove contents.

Read mail to determine to whom it should be delivered if the envelope does not reveal this.

If envelopes contain more than one sheet of paper, or enclosures, attach all together with pin or clip.

Stamp all communications in proper place with dating stamp.

List all mail received according to amount and kind, and turn this list in at end of day to chief clerk or other designated person.

Distribute mail to the proper persons.

Split all envelopes and open them to avoid overlooking any small enclosure.

Enter in a book, provided for the purpose, a record of all registered mail.

At stated times during the day, collect from the various desks the outgoing mail and communications to other departments.

Take the outgoing mail to the central mailing bureau.

Distribute the communications to other departments, carrying them in a box reserved for that purpose.

Before leaving, at end of day, be sure that no outgoing communications remain undelivered.

(As tube tender.)

Receive communications which come in through the tubes and take them to the proper person.

Send communications through the tubes to other departments.

(As messenger.)

See list of duties of messenger boy.

(As usher—in a few departments.)

Greet visitor and inquire whom he wishes to see.

Receive card and invite visitor to be seated.

Take card to proper person.

Return and inform visitor whether the person he wishes to see is at liberty.

Conduct visitor to the desk of the person he wishes to see.

Express regret if the person asked for is not in the office.

(As office boy.)

Change date daily on dating stamps.

Perforate postage stamps. (Not done in all departments.)

Bind office forms and records. (Not done in all departments.)

Answer bells from the desks of the various clerks and go on errands for them.

Assist file clerks in taking letters and documents from the files.

Keep the office stationery neatly arranged in the cabinet used for that purpose.

Keep an up-to-date inventory of the office stationery and notify the head clerk when more of any form should be procured. (Not done in all departments.)

(In freight office.)

Collect from the desk of each clerk and take to the chief clerk the "work slips" showing amount and character of work done during previous day.

Obtain a list of the station records needed during the day by each clerk.

Go to the record room or the shelves where the record books are kept, find the designated books and take them to the proper clerks.

Return these record books to the proper places when they are no longer needed.

Copy delivery orders from freight bills.

Get "scale tickets" from the company weigher.

Attach each "scale ticket" to the corresponding freight waybill.

Make up the duplicate tickets into small bundles for filing away.

Return the freight waybills, with scale tickets attached, to the proper clerk.

Go to the public weigh-master daily at a stated time and obtain from him a certificate of public scale weights of freight.

Take certificate to proper clerk.

Do errand work for various clerks upon request.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The company.

The various departments of the company and their location.

Names of the officers and the location of their offices.

The department.

Names of the employees in the department and the location of their desks.

General nature of the work done by each employee in the bureau or department.

The mail.

Rapid and accurate sorting of mail. The importance of careful sorting.

How to remove contents of envelopes.

How to make inclosures in envelopes of various sizes and shapes.

Office appliances and supplies.

How to change the date on various kinds of stamps.

How to operate the stamp perforating machine, the tubes, the binding machine.

How to keep an inventory of office stationery.

When to collect and distribute the office supplies and records.

Filing.

The filing system used in the department.

How to "dig up" material out of the file.

How and where to number material to be filed.

How to use a "charge out" card.

How to use a "call up" card.

Local geography.

How to locate any given street and number.

Location of the more important office buildings.

Location of the more important firms with which the company has connections.

(Space left for additions.)

Supplementary Units

The department.

General nature of the work of each bureau.

The lines of promotion open to the office boy.

Forms handled.

Meaning and use of all forms handled.

Their history from making to filing.

Business courtesy.

The proper way to meet visitors and obtain information for them.

The proper manner toward officials and business associates.

Courtesy in receiving and repeating messages.

The value of close attention to and interest in the tasks given.

English.

Oral English in addressing officials, fellow employees, and the public.

Meaning, pronunciation, and spelling of railroad terms.

Written English in making records and work reports.

Penmanship.

How to make neat, legible figures.

How to write legibly and rapidly.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the office boy, two of which are suggested below. The units of training which are necessary in preparing an office boy for promotion to a given job may be found by consulting Section III of the analysis of that job.

1

One line of promotion

From office boy to:

(a) File clerk.

(b) Head clerk of filing bureau.

2

Another line of promotion

From office boy to:

(a) Ticket stock room clerk.

(b) Advertising stock room clerk.

(c) See advertising stock room clerk, Section IV.

FILE CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: railroad offices—all departments.

Length of learning period: about one month.

Entrance requirements:

Age: Sixteen years or older.

Sex: male.

Special skill or training: none, though vacancies are usually filled by office boys.

Personal qualifications: retentive memory, accuracy, neatness, promptness, courtesy.

Educational qualifications: eighth grade or higher.

Nature of the work:

It is the duty of the file clerk to attend to the filing of the correspondence, documents, and papers handled in the office in which he is employed. In the smaller offices the office boy (junior clerk) may attend to practically all of this work. In some of the larger offices the duties connected with the filing work are distributed among a number of clerks, one doing one particular task, one another; in other offices, one or two clerks may handle all the work of filing.

II. DUTIES

Open, sort, and read incoming mail (letters, telegrams, and other documents) to determine:

- (1) Subject dealt with, (2) file to which reference is made, and (3) person to whom it should be referred.

Make out "call up" cards, attaching one to correspondence and filing one. (These "call up" cards are filed in chronological order and serve as reminders that a file is to be called up for reference on a certain date.)

"Dig up" files and match correspondence with files to which reference is made.

Fill out a "charge out" card and insert it in place of material removed from the files. (This card shows when and to whom the material was taken and also who took it.)

Bind telegrams, after sorting them according to date, in alphabetical order.

File carbon copies of correspondence sent out.

File all incoming correspondence according to the system in use in the particular office.

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The department.

Names of the department officers and employees.

The nature of the work in the department and its allotment to various bureaus.

Filing.

The filing system of the department, including the system of letters and numbers used and the significance of each letter and number.

How to make a card index.

How to "dig up" material from the files.

How and where to number material to be filed.

How to fill out a "charge out" card and why such card is necessary.

How to fill out a "call up" card and why such card is necessary.

Writing.

How to write neatly and legibly.

How to make legible figures.

English.

Use, pronunciation, and spelling of transportation terms.

How to address officials and fellow workers.

Reading correspondence to determine filing subject.

(Space left for additions.)

Supplementary Units

Filing.

How to file by geographical, alphabetical, and numerical systems.

The use of the different systems of filing.

How to make and use a card index.

The material filed.

The use of all forms handled.

Why the forms filed are necessary.

The value of careful but rapid reading to determine subject matter.

The value of remembering transactions in order to find readily the material filed.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the file clerk, four of which are suggested below. The units of training which are necessary in preparing a file clerk for promotion along any of these lines may be found by consulting Section III of the analysis of the job next in line.

1

One line of promotion

From file clerk to:

- (a) Head clerk in Filing Bureau.

2

Another line of promotion

From file clerk to:

- (a) Rate clerk.
- (b) Head clerk of Rate Bureau.

3

Another line of promotion

From file clerk to:

- (a) Comptometer operator.
- (b) Head clerk of Comptometer Bureau.

4

Another line of promotion

From file clerk to:

- (a) Claims clerk.
- (b) Head clerk of Claims Bureau.

STENOGRAPHER**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Stenographic Bureau.

Length of learning period: about one week if trained.

Entrance requirements:

Age: usually not younger than seventeen.

Sex: female.

Special skill or training: stenography, typewriting, dictatyping.
(One year's previous experience usually required but not essential.)

Personal qualifications: accuracy, speed, neatness, promptness, courtesy.

Educational qualifications: preferably at least two years in high school or the equivalent.

II. DUTIES

(In regard to personal correspondence.)

Take, in shorthand, the correspondence of the clerk or official to whom assigned.

Occasionally take other dictation.

Transcribe stenographic notes.

Prepare the correspondence for signature.

Attend to the filing work connected with correspondence.

(As dictatypist.)

When not engaged with personal correspondence, transcribe the dictaphone correspondence of various clerks as assigned by head clerk of the bureau.

Prepare this correspondence for signature and place in tray for clerk.

(As copyist.)

As work is assigned by the head clerk of the bureau, prepare abstracts, orders, requisitions, and other forms.

(In regard to the daily work report.)

Make a record and daily report of the amount and character of the work and turn the report over to the head clerk of the bureau.

Note.—The girls in the stenographic bureaus do not ordinarily have to make their own carbon "set-ups." This is done for them by another clerk to save time and money. The forms already set up are arranged in large quantities ready for instant use and placed on shelves.

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The stenographic bureau.

Method of organization and management.

Relation to other bureaus in the department.

Stenography. (Required only of girls who take personally dictated correspondence.)

Accuracy and moderate speed.

Typewriting.

Neat, accurate, and rapid filling out of forms.

Neat, accurate, and rapid transcription of notes.

Good form and arrangement of letters and addresses.

Dictatyping.

Accuracy and speed in using the dictaphone.

English.

Correct grammatical English for business letters.

The meaning, use, and spelling of railway terms.

How to punctuate and paragraph a letter.

How to address officers and business associates.

(Space left for additions.)

Supplementary Units

The office business.

The general nature of the business handled by the clerks and officials using the stenographic bureau.

Blanks and forms.

The nature and use of abstracts, orders, requisitions, and other forms used in the office.

IV. PROMOTIONAL POSSIBILITIES

Except under unusual circumstances the only promotion open to the stenographer is to become head of the stenographic bureau.

TICKET STOCK ROOM CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: ticket stock room of general passenger department.

Length of learning period: two weeks to one month.

Entrance requirements:

Age: sixteen to eighteen years.

Sex: male.

Special skill or training: none, though vacancies are often filled by promoting messenger boys or office boys.

Personal qualifications: carefulness, alertness, manual dexterity, speed, promptness, dependability, courtesy.

Educational qualifications: eighth grade.

II. DUTIES

(As ticket stock clerk.)

Unwrap the bundles or packages of tickets as they come from the printer.

Make out a ticket stock check for each form, showing form number, and commencing and closing serial numbers of each allotment received.

File each form in the drawer bearing its form number and place therein the ticket stock check.

Receive ticket requisitions as they come in.

Proceed with requisitions, ticket wagon, and blank stock checks to the ticket files.

Obtain required number of tickets of each form; revise ticket stock check in the drawer according to the number of tickets removed therefrom; make out duplicate ticket stock check showing form number, commencing and closing numbers of tickets removed from each drawer; check each item on the requisition as it is filled; keep each ticket form separate by placing rubber band around it.

Return with tickets on wagon; give original requisition to invoice clerk; put tickets on proper shelves or in proper drawers to await shipment, or on wrapping table if for immediate shipment.

Put duplicate ticket stock check in box for head clerk.

Increase or decrease requisition, if necessary, to keep number of tickets in each drawer ending in an even number.

Make up daily work sheet for the room, showing number of requisitions received, number of shipments sent out, etc.

Keep sample case of ticket forms.

Assist in stamping or shipping tickets.

Notify agent if form ordered is out of print and ask him to order another form.

Keep copy of this notice till agent re-orders.

Notify head clerk if stock of any ticket form is becoming exhausted.

(As invoice clerk.)

Copy invoices on the typewriter from requisitions sent in by agents, or from lists of commutation tickets made up by head clerk.

Prepare these invoice forms beforehand by inserting necessary carbons and arranging in a neat pile in drawer.

File one copy of invoice, send one copy with ticket shipment, and send one copy to auditor.

(Invoice shows destination, agent, date, form number, series number, commencing and closing serial numbers, quantity, all of which is copied from the ticket requisition or monthly commutation list.)

Prepare express or baggage labels and address labels for each shipment of tickets, clip together and put on shipping table.

Assist in stamping or shipping.

Do errand work.

(As stamper.)

Refer to commutation lists to discover which ticket books are to be stamped.

Get these books from proper shelf, untie them, and arrange conveniently for stamping.

Refer to commutation list to discover what stamping is to be done.

Find proper stamp or stamps in stamp case, or set up stamp desired if not in stock.

Hold book under left hand, turn pages with fingers of left hand, apply stamp rapidly and accurately in required spaces with right hand.

Look through book to see that no stamping has been omitted.

Stamp the covers of books with another stamp to indicate to auditor whether names of one or of two stations were stamped on tickets in the book.

Return stamps to stamp case in proper alphabetical order when stamping has been completed.

Place rubber band around tickets stamped, write destination on slip of paper, insert paper under band, place tickets on shelf to await shipment.

Check off each item on commutation list as the required tickets are stamped.

Return commutation list to head clerk.

Refer to agent's requisition for stations, routings, and other data to be stamped on tickets other than commutation.

While stamping, observe numbers and written contract on tickets to detect errors.

If mistake had been made in ticket, use "void" stamping machine and canceling punch and send ticket to auditor.

(As shipping clerk.)

Receive invoice from invoice clerk.

Get tickets called for from drawer or shelf.

Check tickets against invoice as to form number, total number being sent, destination.

Seal local ticket packages in carton used for that purpose.

Wrap and tie or seal total shipment, inclosing copy of the invoice. Paste on the package the address label and the express or baggage label.

Make out the express receipt if shipment goes by express, or registered baggage waybill if shipment goes as baggage.

Deliver express packages to express man when he calls, getting his signature on the express receipt.

Take baggage packages to mailing room.

Keep a record of total packages shipped during the day; turn this record over to ticket stock clerk.

Keep materials used, including cord, twine, wax, scales, stamp, scissors, etc., in proper place.

Notify ticket stock clerk or head clerk when supply of any material needs to be replenished.

Assist in stamping tickets.

Act as errand boy.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The ticket stock room.

Names of fellow employees and the general nature of their duties.

The location of the supplies and materials used in the room.

The relation of the ticket stock room to the general passenger department.

Stamping tickets.

How to arrange the ink pad, hold the stamp, and hold and turn the tickets, to work rapidly, neatly, and accurately.

Where to put the various stamps on each form of ticket called for in the requisition.

The correct wording of the contract on the ticket, so as to be able to detect errors.

Where to find the tickets called for in the requisition.

Where to put the tickets after stamping them.

Shipping tickets.

How to wrap, tie, seal, and weigh packages of tickets preparatory to shipment.

Which tickets should be sealed, and which merely tied.

How to use scissors, lead seal, wax seal, package sealer, postal scale, gas plate.

Which shipments go by express, which by registered baggage.

How to make out express receipts and registered baggage waybills.

How to check the shipment against the invoice.

How to prepare express and baggage address labels for the ticket shipments.

Invoicing.

How to operate the typewriter and the copy holder.

How to set up the carbon copies of the invoices.

How to copy invoices from requisitions or from commutation ticket lists.

How to file the invoices.

The ticket stock.

In which division of the stockroom each of the many classes of tickets is filed.

How to arrange the tickets in the drawers.

How to make out the ticket stock checks.

How to handle the larger tickets.

Requisitions and reports.

How to fill out the daily work report form.

How to fill out notification to agents when form ordered is out of print or exhausted.

What information the requisitions and monthly commutation lists should contain.

(Space left for additions.)

Supplementary Units

The general passenger department.

Names of the officials and employees with whom the ticket stock room clerk comes in contact.

Passenger tickets.

The various kinds of tickets and the use of each.

The reason for having different kinds of tickets.

The nature of the contract between the company and the passenger resulting from the purchase of a particular kind of ticket.

The importance of having every ticket stamped.

The history of the passenger ticket from printing to filing or destruction.

Office forms.

Express receipts and registered baggage waybills, and the use of each.

The necessity for filling out the form for notification to agents.

The importance of the invoice.

Ticket offices.

The general nature of the work in a ticket office.

The methods of doing the work.

The forms used.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the ticket stock room clerk, three of which are listed below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job in question.

1

One line of promotion

From ticket stock room clerk to:

- (a) Advertising stock room clerk.
- (b) Rate clerk in general passenger office.
- (c) Head clerk in rate bureau.
- (d) Chief clerk.
- (e) Official.

2

Another line of promotion

From ticket stock room clerk to:

- (a) Advertising stock room clerk.
- (b) Claims clerk in general passenger office.
- (c) Head clerk in claims bureau.
- (d) Chief clerk.
- (e) Official.

3

Another line of promotion

From ticket stock room clerk to:

- (a) Claims clerk in general passenger office.
- (b) Head clerk in claims bureau.
- (c) Chief clerk.
- (d) Official.

ADVERTISING STOCK ROOM CLERK

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: advertising stock room.

Length of learning period: about two weeks.

Entrance requirements:

Age: seventeen or eighteen.

Sex: male.

Special skill or training: none, though vacancies are usually filled by promoting ticket stock room clerks.

Personal qualifications: dependability, accuracy, carefulness, promptness, courtesy.

Educational qualifications: eighth grade.

II. DUTIES

(As to receiving material.)

Receive, receipt for, and unpack time tables, wall cards, folders, pictures, cuts, stereopticon views, and other advertising material of own company and other companies.

In case of advertising material of own company coming directly from printer, check the material against accompanying invoice, mark invoice "O. K. goods received," or make proper notation if goods check short and turn invoice over to head clerk.

In case of material coming from other companies, deliver baggage checks or bill of lading previously received, to baggage man, who can claim material and bring it to advertising stock room.

Check all incoming advertising material of other companies, and mail receipt for it back to consignor.

(As to storing material received.)

Store all material, such as time tables, folders, posters, pictures, and cuts of other companies and of each route of own company on the proper shelf or in the proper drawer or case.

Place samples of advertising matter, including folders, in a sample case.

Keep stock of postcards, baggage and express labels, and other office material in the proper place.

Notify head clerk when stock of material is low.

(As to shipping material.)

Refer to mailing list in preparing regular shipments of time tables to agents.

Make out invoice in duplicate to cover shipment.

In case shipment is small take material to mailing bureau with directions for mailing to agent.

For larger shipments prepare baggage waybill, or express receipt.

Prepare the baggage or express label.

Number the invoice and the label.

Make up the package inclosing copy of invoice.

Attach the label.

Number the package with the number on the label.

File the office copy of the invoice.

In case requisition comes in for material, use as guide in filling the requisition a duplicate of advertising agent's reply thereto stating that certain material is being sent.

Mark this duplicate letter "shipped," date of shipment, number of baggage check, and file it as evidence of shipment.

In case shipment goes to an off line representative, send postcard notifying him of shipment, giving baggage check number and routing.

Send baggage checks to consignee on all baggage shipments.

In case material is to be sent to foreign country, make up shipper's export declaration in quadruplicate.

Make invoice to cover shipment.

Send two copies of invoice and four copies of export declaration to advertising agent for signature and transmittal to express company's agent.

(As to record keeping.)

Keep a record of each form of time table received and sent out.

Balance this record as each new issue of a particular form of time table is received. Destroy remaining stock of previous issue.

Keep a record of each form of folder received and sent out.

When bill comes from express company for material shipped, mark the charges on the office copy of the express receipt.

Keep a record index of each picture, showing name of picture, size, quantity, date received, number sent out, date on which sent, agent to whom sent.

Keep record of stereopticon views received and sent.

Keep index of "cuts" of folders received from printer, arranged alphabetically by title, showing drawer number in which the cut is to be found.

Keep a cardboard stock check on the shelf with each form of advertising poster.

Keep a book of maps taken from time tables for reference in routing shipments to off-line representatives.

Keep a reference list of local agents and off-line representatives of the company.

Keep a mailing list for reference in sending in sending time tables to company agents.

(As to filing.)

File all requisitions alphabetically under station name. Show thereon date of shipment and material actually sent.

File all cuts in numerical order in drawers. Label each drawer and show the name and number of the cut contained therein.

(As to reports.)

Make up daily report of work done, showing number of requisitions received and filled and amount of material of various kinds received and sent.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

Advertising Stock Room.

The location of the supplies and materials used in the room.

The relation of the Ticket Stock Room and the Advertising Stock Room to the General Passenger Department.

Receiving material.

How to unpack, count, and check various kinds of material received.

What to do in case of shortage.

The use of baggage checks and bills of lading.

Why it is necessary to receipt for material.

Storing material.

The place reserved for storing each class of material.

The classes of advertising matter of which samples must be retained.

The arrangement of office supplies.

Shipping advertising matter.

Which shipments should go by mail, which by baggage, express, or freight.

Which shipping documents to make out in each case.

How to make out an invoice; why it is necessary.

What disposition to make of the original and duplicate copies of each shipping document, invoice, or label.

Variations in procedure when shipping material to local agents, off-line representatives, or to foreign countries.

How to wrap and tie or seal packages securely.

Record keeping and report making.

Whether or not a record is kept for each class of advertising material.

In case record is to be kept, what form of record must be used, what information placed thereon.

How to keep a cardboard stock check.

How to make out the daily work report.

Filing.

How to file requisitions, what notations to make on the requisitions.

How to index and file cuts.

(Space left for additions.)

Supplementary Units

Advertising.

The necessity for having an advertising bureau.

Regular advertising.

Seasonal advertising.

Emergency advertising.

Advertising to promote good will.

Advertising media best adapted to the attainment of the desired end.

Shipping documents.

The content, meaning, and use of each shipping document.

The reasons for the special procedure in the case of shipments to foreign countries.

English.

Oral English in addressing officials and fellow employees.

The English used in writing various styles of advertisements.

The vocabulary of railroad terms.

Penmanship.

How to write neatly and legibly.

The necessity for having shipping documents neat and legible.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the advertising stock room clerk. Three are listed below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job next in line.

1

One line of promotion

From advertising stock room clerk to:

- (a) Rate clerk in general passenger office.
- (b) Head clerk in rate bureau.
- (c) Chief clerk.
- (d) Official.

2

Another line of promotion

From advertising stock room clerk to:

- (a) Claims clerk in general passenger office.
- (b) Head clerk in claims bureau.
- (c) Chief clerk.
- (d) Official.

3

Another line of promotion

From advertising stock room clerk to:

- (a) Clerk in advertising and publicity bureau
- (b) Head clerk in advertising and publicity bureau.

JUNIOR CLAIMS CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: the Filing and Record Bureau of General Passenger Offices.

Length of learning period: one or two months.

Entrance requirements:

Age: fifteen to eighteen years.

Sex: male.

Special skill or training: none.

Personal qualifications: retentive memory, alertness, carefulness, neatness, promptness, honesty, courtesy.

Educational qualifications: eighth grade.

Nature of the work:

Many claims are presented to the railroad company by passengers who have not used all the transportation for which they paid when they purchased a passenger ticket. A claim is a written request to the company for settlement. The junior claims clerk prepares correspondence regarding such claims for handling by the Claims Bureau of the General Passenger Office.

II. DUTIES

Receive communications concerning claims as they are brought to the desk by the clerk who distributes the mail.

Separate the communications referring to old claims from those referring to new.

Handle old claims as follows:

Ascertain the number of the claim from the communication or from the index of claimants.

Write this number in large pencil figures in the upper right hand corner of the communication.

Find the file bearing this number.

Remove all papers referring to the claim and attach them to the communication.

Once each day take all such communications, with papers attached, to the claims bureau for handling.

Handle new claims as follows:

If the communication is accompanied by a ticket or a receipt, place these in an envelope.

Attach this envelope and the communication to a backing sheet.

Stamp a consecutive identical number upon the envelope, the communication, and the back of the backing sheet.

Index the claim on a form card showing name of claimant, number assigned the claim, date of receipt, number of the ticket.

At a stated time take all new claims to claims bureau for handling.

Prepare a folder for holding the new claim in the files, by placing the claim number upon it.

On a pad, make out a list of current unassigned new claim numbers.

When a claims clerk telephones for a number for a claim which has come to him directly, note on this pad the initials of the claims clerk, and the name of the claimant on either side of the number assigned.

See that the claim gets the assigned number when it comes to the desk.

Handle claim index cards as follows:

Fill out card for each claim, entering thereon name of claimant, number assigned the claim, date of receipt, and number of the ticket.

File the card alphabetically according to name of claimant.

When there are two or more parties to a claim, make out a separate card for each party, but use only one claim number.

File each card separately according to the name of the claimant.

When claims are closed, take card from current file, write date of closing upon it, and file it in alphabetical order in the closed file.

Handle ticket index cards as follows:

Fill out in duplicate a card for each ticket, entering thereon ticket number, form number of ticket, date of filing, and number of the claim.

Leave one copy in the ticket index card book.

File other copy in ticket index card file, according to the ticket number.

When claim is closed, transfer card from current to closed file.

Handle claims retained by claims bureau as follows:

Keep a temporary record on a form card, showing who has the papers and what he is doing with the claim.

Handle duplicate claims as follows:

Fill out a cross reference form sheet showing date, name of claimant, and both numbers.

File this cross reference under the new number.

Remove the claim and file it under the old number.

Handle reports and records of work as follows:

Keep a record of work done each day.

From this record make a report on proper form showing number of new and old claims received, sent to claims bureau, filed, unfiled, closed, or held over.

Hand this report to head clerk.

Handle filing as follows:

File the claims received back from the claims bureau each day.

Transfer to the closed file those claims which have been closed.

Occasionally get individual claims from the files as they are called for.

Attend to desk and equipment as follows:

Keep the desk, pencils, papers, pens, erasers, ink bottles, etc., arranged in a neat and orderly manner.

Reset the dating stamp.

Observe the daily routine as follows:

Arrange material on desk if this has not been done the previous evening.

Take claims received during previous day to claims bureau.

File the claims received back from the claims bureau.

Transfer the files of claims which have been closed.

Separate the old from the new claims in the day's mail.

Prepare the new claims for the claims bureau and assign them numbers.

Attach correspondence to the old claims.

(Space left for additions.)

Occasional Duties

Assist file clerks.

Assist in the proof reading of new rate sheets.

Do errand work.

Sometimes act as a special messenger.

Assist at the mail desk.

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Filing and Recording Bureau.

Names of other employees in the bureau.

Nature of the work done in the bureau.

Where stationery and supplies used in the bureau are kept.

Preparing claims.

The order in which the daily routine of tasks is to be performed.

How to attach the correspondence and the material in the file to the backing sheet in preparing claims for claims bureau.

How to use dating and numbering stamp.

How to make out the required records.

Indexing and filing.

Systems ordinarily used in indexing and filing correspondence.

The card index system used in indexing claims.

The system used in filing claims.

The filing system used in the file and record bureau.

The location of the various filing cases; what material each contains.

Passenger tickets.

The various kinds of passenger tickets, local and interline.

The nature of the contract on the ticket.

How claims arise; how they are handled.

Refunds to passengers in settlement of claims.

(Space left for additions.)

Supplementary Units

The claim.

The procedure necessary in presenting a claim to the railroad company.

What constitutes a valid claim.

The duties of the railroad company in regard to claims made by passengers.

How claims are settled by the railroad company.

Passenger train service.

General knowledge of rates and fares to important points.

General knowledge of the time schedule of trains.

How to use a time table.

Business English.

Oral English in addressing fellow workers.

How to fill out certain forms properly.

Business writing.

How to make neat, legible figures.

How to write neatly and legibly.

The necessity for having records neat and legible.

The part good penmanship plays in promotion.

IV. PROMOTIONAL POSSIBILITIES

There are no very definite lines of promotion for the junior claims clerk. The following are not exhaustive, simply suggestive.

1	2
<i>One line of promotion</i>	<i>Another line of promotion</i>
From junior claims clerk to:	From junior claims clerk to:
(a) File clerk.	(a) File clerk.
(b) Head file clerk.	(b) Head file clerk.
(c) Head clerk in File and Record Bureau.	(c) Clerk in Claims Bureau.
	(d) Head clerk in Claims Bureau.
3	4
<i>Another line of promotion</i>	<i>A subsequent line of promotion</i>
From junior claims clerk to:	From head clerk of a bureau to:
(a) File clerk.	(a) Chief clerk in general pas- senger department.
(b) Head file clerk.	(b) Assistant general passen- ger agent.
(c) Rate clerk.	(c) General passenger agent.
(d) Head clerk in Rate Bureau.	(d) Assistant passenger traf- fic manager.
	(e) Passenger traffic manager.

JUNIOR WAYBILL CLERK

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: railway freight stations.

Length of learning period: about two weeks.

Entrance requirements:

Age: fifteen to eighteen years.

Sex: male.

Special skill or training: none.

Personal qualifications: manual dexterity, alertness, speed, promptness, courtesy.

Educational qualifications: eighth grade.

II. DUTIES

(*As stamper.*)

At intervals during the day, as they accumulate on the desk of the "reviser," gather waybills with shipping orders attached.

Stamp each waybill and the shipping orders attached thereto with the same number, being careful to stamp the waybill in the proper place.

Detach the various shipping orders from each waybill.

Pass the waybill to the "stripper."

Put the shipping orders for each station in boxes or trays alphabetically arranged.

Arrange the shipping orders in each tray alphabetically according to the station named as destination.

Make out on a typewriter, in quintuplicate, the car lists for the trains. (This car list shows car initial, car number, commodity, destination of car, and where car was loaded. One copy is kept for checking the waybill, the other four go to the yard offices.)

Put the office copy of the car list on the proper board.

Arrange the yard office copies in a pile for sending to the yard office.

Bind the shipping order for each day and for each station in a separate book.

Write on the back of the book the date and station.

File the book.

(As stripper.)

Strip the original waybill from the duplicate.

Pass the original copy to the "folder."

While stripping, if two forms of waybills are used, sort the duplicate waybills into two piles, one for local, the other for through waybills.

Bind the duplicate waybills in books each day in numerical order.

Write on the back of the book the date, and beginning and ending numbers of waybills contained therein.

(As folder.)

Fold waybills to a given size and shape.

If two forms of waybill are used, sort the waybills into two piles, one for local waybills, the other for through waybills.

Distribute the waybills in boxes or trays alphabetically arranged.

Act as errand boy or messenger.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The freight station.

Names of the employees, location of their desks, and the duties performed by each.

Where the office records and supplies are kept.

Stamping waybills and shipping orders.

Where to stamp the waybill.

How to re-set the numbering machine.

How to separate the original from the duplicate without tearing.

Arranging and distributing.

Where to find the name of the station on a shipping order.

How to arrange documents by stations in alphabetical order.

How to distinguish a local from a through waybill and distribute them into the two classes.

Making up car lists.

Where to look for the necessary data on the shipping order.

How to use the typewriter in making the original and carbon copies where accuracy rather than speed is required.

Where the copies of the car lists should be sent.

Binding, labeling, and filing.

How to bind the shipping orders and waybills.

What data must be marked on each book.

Where to file the books.

Folding waybills.

How to fold waybills.

The required size and shape of waybill when folded.

How to grasp and turn the waybill so as to fold it neatly and rapidly.

(Space left for additions.)

Supplementary Units

The company.

Names of the more important company officials with whom the freight office comes in contact.

The location of the bureaus in the department and the general nature of the work of each.

The shipping order and the waybill.

What each is, and what information it contains.

The relation of the shipping order to the bill of lading, and to the waybill.

The relation of the waybill to the shipping order and the freight bill.

The relation of the waybill to the movement of freight shipments.

Why shipping orders and corresponding waybills should have identical numbers.

Business English.

Oral English in addressing fellow workers.

The vocabulary of railway transportation terms including their meaning, use, pronunciation, and spelling.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the junior waybill clerk, three of which are listed below. The units of training necessary to prepare for promotion along any of these lines may be found by consulting Section III of the analysis of the job in question.

1

One line of promotion

From junior waybill clerk to:

- (a) Waybill revisor.
- (b) Rate clerk.
- (c) Head clerk of rate bureau.
- (d) Assistant freight agent.
- (e) Freight agent.

2

Another line of promotion

From junior waybill clerk to:

- (a) Waybill revisor.
- (b) Classification clerk.
- (c) Head clerk of outbound department.
- (d) Assistant freight agent.
- (e) Freight agent.

3

Another line of promotion

From junior waybill clerk to:

- (a) Freight billing clerk.
- (b) Freight bill revising clerk.
- (c) Head clerk of inbound department.
- (d) Assistant freight agent.
- (e) Freight agent.

SORTER OF LOCAL TICKETS**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Local Bureau of the office of the Auditor of Passenger Accounts.

Length of learning period: about one month.

Entrance requirements:

Age: sixteen or older.

Sex: male or female.

Special skill or training: none.

Personal qualifications: retentive memory, some manual dexterity, carefulness, courtesy, willingness to work and learn.

Educational qualifications: grammar school.

II. DUTIES

Sort local tickets, proceeding as follows:

Remove bundles of tickets from desk drawer where they have been placed on being brought from conductors' bureau.

Remove rubber band from each bundle and sort tickets in neat piles alphabetically according to selling station.

When all are sorted secure each pile with rubber band.

Stack all piles for the same station in the same group.

While sorting, observe each ticket and remove "back dates," tickets which have not been punched, tickets which have been double dated, and any tickets belonging to another division.

File "back dates" in proper group in ticket files.

Turn tickets not punched and double dated tickets over to another clerk for handling.

Sort tickets for each selling station alphabetically according to destination station.

File the tickets as sorted in temporary cardboard box files.

As the boxes are filled, take them to the ticket filing bureau for final numerical sorting and filing.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Local Bureau.

Names of the officials, particularly those connected with the Local Bureau.

General nature of the work of the Bureau.

The local passenger ticket.

The changes made on the ticket in the course of its use, i.e., the blanks filled out, the date, the baggage punch, and the conductor's punch.

Ticket sorting and filing.

The items to observe on the ticket: the dating, the conductor's punch, and the name of the station.

The names and geographic order of stations in the divisions. (Each clerk is given tickets of one division, or sometimes two or three small divisions, to sort.)

How to sort the tickets quickly and neatly into piles.

The importance of careful sorting.

The system of temporary filing used by the Local Bureau.

(Space left for additions.)

Supplementary Units

The local passenger ticket.

The contract on the ticket.

The history of the ticket from the time it is printed until it is mascerated and sold for old paper.

The geography of the divisions of the railroad.

The stations of the divisions and their location.

The relative size and importance of the cities and towns of the divisions.

English.

The meaning, use, and spelling of railway terms, with special reference to the terms common to the Auditing Department.

The importance of good oral and written English for promotion.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the ticket sorter, three of which are listed below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job next in line.

1

One line of promotion

From sorter of local tickets to:

(a) Comptometer operator.

2

Another line of promotion

From sorter of local tickets to:

(a) Dictatypist.

3

Another line of promotion

From sorter of local tickets to:

(a) Clerk in home interline bureau

(b) Clerk in foreign interline bureau.

TICKET SORTER AND CHECKER**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Home Interline Bureau, office of the Auditor of Passenger Accounts.

Length of learning period: about one month.

Entrance requirements:

Age: preferably over sixteen.

Sex: male or female.

Special skill or training: vacancies ordinarily filled by promoting junior clerks or local ticket sorters or checkers.

Personal qualifications: accuracy, carefulness, retentive memory, neatness.

Educational qualifications: grammar school, ability to write simple letter from model.

II. DUTIES

Sort the home interline tickets in the following manner as they come from the Foreign Interline Bureau:

Place the bucket containing the tickets on its side on the table and remove the tickets one by one.

Turn the ticket over, read selling station named on the back, and determine the division in which the station is located.

Throw each ticket into the compartment bearing the name of the division in which the station is located.

Throw San Francisco and Los Angeles tickets, however, into their own respective compartments.

While making the above assortment keep all "Craig tickets" and all contracts (i.e., return portion of round trip ticket) in two separate groups on the table.

Next sort all tickets (except contracts and San Francisco and Los Angeles tickets) into station groups for each division.

Sort the "Craig tickets" into division and station groups.

Secure each group of tickets with a rubber band and place them in envelopes bearing the name of the division and station.

Arrange envelopes alphabetically by stations under each division and lay them aside.

Later in the month arrange the envelopes geographically by stations under each division.

Then remove the tickets for each station and sort them into form order and numerically under each form, preparatory to checking.

Put contracts (i.e., return portions of round trip tickets) in a separate box.

Sort contracts by months and place them, grouped in this way, in a drawer marked "Unchecked Contracts," to await checking.

When preparing to check contracts, put them first into division order, then into geographical station order under each division, and finally into contract form number order under each station.

Check all tickets against "agent's daily report of home interline tickets sold," to see that:

- (1) Each ticket corresponds with the report with respect to sale date, price, form and serial number, destination, and junction points named.
- (2) Sale date corresponds with date ticket was used or that ticket bears agent's notation in case ticket is sold for use on a later date.
- (3) War tax is not included in the sale price marked on the ticket.

In addition, check the following tickets as indicated:

Half-fare tickets to see that they have been properly punched.

Clergy tickets for the clergy number.

Excursion tickets to see that selling and returning date limits have been observed.

Special rate tickets for indication of the reason for the special rate.

Cancelled tickets to see that they have no conductor's punch mark.

Unchecked contracts for return date limit and for return junction as indicated on agent's report.

Handle correspondence with agents as follows:

If agent reports a ticket number twice, make necessary corrections on his report, write advising him and asking confirmation.

If agent fails to write sale price on ticket or includes war tax in sale price, write calling his attention to the rule applying to the case.

If agent's report shows ticket cancelled and conductor's punch shows it used, write the agent asking him why he cancelled it. Turn the matter over to head clerk if agent's reply is not satisfactory.

If ticket on hand does not appear on agent's report, instruct him to include it in his report for the following month.

When any other irregularities appear, write the agent for an explanation.

In all the above cases where correspondence is necessary, proceed as follows:

Hold the ticket out and make a pencil memorandum as a guide in writing the letter.

Make pencil correction notation on the agent's daily report.

Take letter to file clerk who gives it a file number. Note this number on the agent's daily report.

Set tracing date one month ahead on filed copy of correspondence.

If reply is not received by tracing date, send out postcard tracer, setting second tracing date two weeks ahead.

If reply is not received by this date turn the matter over to the head clerk.

Observe the monthly working schedule as follows:

From 1st to 5th of month handle special rate orders, clergy tickets, and prepaid orders.

From 5th to 10th of month put tickets in form number order.

From 10th to 25th of month check tickets and start necessary correspondence with agents.

From 25th to 31st of month work on "contracts."

File tickets as follows:

Number agent's reports from each station daily as they come in, starting each month with the number 1.

Keep permanent record of the work done each day and also make a daily work report of same.

File all checked home interline tickets by divisions in proper cabinet until they are sent to permanent file.

Keep all "going portions" of round trip tickets in box on desk for five months for easy access in case other roads wish to trace any ticket. Then file them.

File contracts each month as they are checked.

When tickets are ready for permanent filing, fill out a label form showing names of "from station" and "to station," month, year, number of the box in which they are filed.

Fill out, for the box, a corresponding index of records in duplicate showing description of matter filed, corresponding with label on the box. Place proper I.C.C. number on the index. Send both to "warehouse." When one copy is returned showing location in files, file it under the proper month.

Handle parlor car tickets as follows:

Sort according to divisions in numerical order.

Place them in the envelopes with the regular collection of tickets for the division.

File them with the regular tickets.

When a ticket is to be withdrawn from the files, fill out and insert in place of it a "Ticket withdrawn" card giving a complete description of the ticket, together with the number of the file to which it is to be attached or the initials of the person for whom it is withdrawn.

When records (agent's reports in bound form) are sent to record storage room (warehouse) fill out Index of Records.

When records are desired from "warehouse" fill out "request for records" form, giving description and location (by referring to bottom of Index of records card) of records required, and sign the request.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Home Interline Bureau.

The nature of the work in the office of the Auditor of Passenger Accounts.

The relation of the work of the Home Interline Bureau to other bureaus in the department.

The names of officials and the line of authority in the bureau.

Sorting home interline tickets.

Which tickets to sort into division groups.

The division of the road in which each station is located. (In case of doubt refer to list of stations.)

The geographical order of the stations in each division. (When in doubt refer to geographical station list.)

Checking home interline tickets.

How to check tickets against agent's daily report.

Where to find quickly necessary information on various kinds of tickets.

When ticket and report completely correspond.

What rule the agent has violated in case of each error.

When a ticket is irregularly issued in any way by the agent.

How to proceed in case of any irregularity on ticket or on report.

Why it is necessary to number the agent's reports.

Handling correspondence with agents.

The routine to be followed in writing first and follow-up letters to agents.

How to write a simple, concise letter, or use a letter form in corresponding with agents in regard to irregularities on tickets or reports.

Filing tickets.

The system used by the company in both temporary and permanent filing of tickets.

How to prepare the labels and the index for the boxes in which tickets are filed.

How to fill out a "ticket withdrawn" card when removing a ticket from the files.

How to fill out a "request for records."

(Space left for additions.)

Supplementary Units

The Department of the Auditor of Passenger Accounts.

The general nature of the work of the department.

The relation of this department to other departments in the company.

The home interline ticket.

The various classes of home interline tickets.

The nature of the contract on each class of ticket.

Geography.

The location of stations by railroad divisions.

English.

Oral English in addressing officials and fellow employees.

How to fill out properly the forms used.

How to write a clear, concise letter.

The vocabulary of railway terms used in the auditing department.

The importance of good English for promotion.

Penmanship.

How to write neatly and legibly.

The necessity for having railroad records neat and legible.

The part good penmanship plays in promotion.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are several promotional possibilities open to the ticket sorter and checker. Two lines are suggested below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job next in line.

1

One line of promotion

From sorter and checker in home
interline bureau to:

(a) Ticket checker in foreign
interline bureau.

(b) Head ticket checker.

2

Another line of promotion

From sorter and checker in home
interline bureau to:

(a) Rate clerk in home inter-
line bureau.

(b) Head rate clerk in home
interline bureau.

TALLY CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Foreign Interline Bureau, office of Auditor of Passenger Accounts.

Length of learning period: about two months.

Entrance requirements:

Age: seventeen or older.

Sex: male or female, usually female.

Special skill or training: none required, though vacancies are often filled by transfer from conductors' bureau.

Personal qualifications: carefulness, accuracy, reliability.

Educational qualifications: eighth grade; ability to write neatly and legibly.

Nature of the work: A gateway is a main terminal point where the railroad connects with other railroads, and through which, therefore, traffic comes into and goes out of the territory of the road in question. The work of the tally clerk consists first, in segregating the tickets honored through each gateway, grouping the tickets for each gateway into classes, grouping each class into routes eastward and westward, and then counting and tallying them; second, in making a segregation of the tickets into month groups, segregating the tickets issued by each road, and counting and tallying them.

Since classification of tickets must necessarily be different for different railroads, to list the duties in detail it is necessary to use the classification found in one division office.

II. DUTIES

Remove tickets from bucket in which they have been sent in from Conductors' Bureau.

(Tallying tickets through gateways by classes and routes.)

Segregate the tickets into gateway groups, making a separate gateway segregation for home interline and for foreign interline tickets, but hold out of these segregations the following tickets for each of which make a separate group:

Transfers (across town).

Mutilated tickets (any data not legible).

Foreign interline not reading via S. P.

G. H. & S. A. tickets sold at El Paso.

"Locals" (small foreign line tickets with starting point and destination in S. P. territory).

S. P. local tickets.

Note.—The initials used in this section are recognized abbreviations for certain railroads.

While making the gateway segregation, pin a white tag on all "intermediates." (Intermediates show four stations. The two middle stations must be main S. P. gateway stations; the stations of origin and destination must be on other lines. Clerk has a list of the names of certain small roads which issue these intermediates, to which reference may be made in case of doubt.)

Put rubber band around each foreign interline gateway group, and set them aside.

Put rubber bands around "transfers," mutilated tickets, and foreign interline tickets not reading via S. P., write upon the back of each bundle "Box 10," sign with own initials and lay aside for sending to proper clerk.

Bundle the G. H. & S. A. group and lay aside for proper clerk.

Bundle the S. P. locals and lay aside for local bureau.

(Handling home interline gateway groups.)

Make class groups of each home interline gateway group as follows:

First class.

Round trip.

All-year tourist.

Government.

Segregate each of the four classes for each gateway into routes, and make a separate group for "no route shown."

Segregate each of the route groups into east bound and west bound.

Count the tickets thus segregated and tally on small S. P. tally sheets (one sheet for each class) under the proper tally date and opposite the proper road, east bound and west bound.

Place the tickets in a bucket for sending to home interline bureau.

(Handling local tickets.)

Handle the locals held out of the gateway groups as follows:

Segregate the tickets into road groups, making separate road groups for government tickets except government tickets over the Arizona and Eastern Railroad.

Count the tickets in each road group.

Tally the tickets on local large condensing sheet opposite the particular road, but do not show gateway, class, or routing.

Tally the Local Government tickets on local government large condensing sheet, writing the month, name of the road, from-station, to-station, under "Intra" if all travel is in the same state, under "Inter" if not all in same state.

Bundle the tickets for each road, put month and number of tickets in the bundle on the back of the last ticket.

Foot each of the two big sheets and balance against total of the tickets as counted.

Lay the tickets aside for further handling by another clerk.

(Handling foreign interline tickets)

“Class” the foreign interline tickets for the El Paso gateway, holding the G. H. & S. A. tickets out of the four classes and handling as follows:

Separate the large tickets into “government” and “non-government” groups.

Separate the small tickets into “government,” “G. H. & S. A.,” and “G. H. & S. A. via S. P.”

Make a separate group for double tickets.

Put the two government groups together and send to another clerk for handling.

Put the “G. H. & S. A.” group with the “non-government” group.

Separate the “G. H. & S. A. via S. P.” group into two groups, one for “G. H. & S. A. via S. P.—P. S.,” another for any other routing.

Put the “G. H. & S. A. via S. P.—P. S.” with the “non-government” group.

Count the group for the other routing and tally at the bottom of the small first class tally sheet as “El Paso Throw-outs,” after which bundle them and place them in the tray for subsequent “month order.”

Separate the double tickets into Lordsburg, Deming, and Bowie groups.

Put each of these three into month order and count them.

Tally them as segregated on the small first class tally sheet and on the large condensing sheet.

After tallying, place them with the “non-government” group.

Bundle the “non-government” group as now constituted, mark it on the back “G. H. & S. A. not in order,” and pass it to the Back Desk.

“Class” the foreign interline tickets for the Portland gateway, holding “Portland Government” tickets out of the classes.

“Class” the foreign interline tickets for the remaining gateways.

Route each class for each gateway and make a group for “no route shown,” separating each route into eastbound and westbound.

Count the tickets for each gateway and tally on small tally sheets for that gateway.

Bundle the tickets and put them in the tray for subsequent "month order," holding out however, the "Intermediates" and the "Portland Government group."

Take the "Intermediates" (already tallied with other foreign inter-line tickets in each gateway group) for each gateway, class them and route them east and west.

Count them and tally them for the other gateway on the small intermediate tally sheet by gateways, by classes, and by routes east and west.

Put them in the tray for subsequent "month order" classification.

Take the "Portland Government" group (held out when classing Portland gateway), count and tally them on the large Portland government sheet.

Put them in the tray for subsequent month order classification.

(In tallying tickets in month order by roads.)

Remove bundles of tickets from the tray.

Turn each bundle over so as to see date on back of each ticket.

Separate the tickets into "back dates" and "current." (Head Clerk tells girl which month to consider "back dates" and which "current.")

Bundle the "back dates" and lay them aside.

Segregate the "current" tickets by months into seven groups, one group for S. P. tickets, one for A. T. & S. F. tickets, and five other groups corresponding to the five large condensing sheets on which the roads are listed.

Put the tickets corresponding to each sheet into the order in which the roads appear on that sheet.

Bundle the tickets for each road, count them, tally them on the large condensing sheet opposite the respective road under the proper date, and put them in the bucket for sending to the assorting clerks.

Sort the "back dates" into gateway order, tally opposite the gateway on large Back Date sheet, bundle, and put them in the bucket with the others for the assorting clerks.

(Balancing and recapitulating.)

Add each small class tally sheet separately and deduct "Intermediates."

Place the total for each of the four class tally sheets opposite the respective class on the small recapitulation sheet.

Get the total of the small recapitulation sheet.

Get the total of each large condensing sheet.

Place each of these totals on the large recapitulation sheet opposite the name of the sheet from which it was taken.

Get the total for the large recapitulation sheet.

Compare the total of the small recapitulation sheet (a total by classes) with the total of the large recapitulation sheet (a total by dates) to see that they correspond.

(Record of time distribution.)

Make a record and report of the amount of time spent on each tally, and turn it over to head clerk.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Foreign Interline Bureau.

The nature of the work of the bureau.

The relation of the work of the Foreign Interline Bureau to the work of the other bureaus in the office of the auditor of passenger accounts.

The names of officials and the line of authority in the bureau.

Passenger tickets.

How to distinguish quickly between local, home interline, and foreign interline tickets.

How to recognize an "intermediate" ticket.

How to distinguish quickly between the four classes of tickets.

Gateway segregation.

How many gateways there are; where they are.

Which tickets to hold out of the gateway groups.

What disposition to make of each group of tickets held out of the gateway groups.

Class segregation.

What the four classes are.

Which group should be "classed" first.

Which tickets to hold out of the classes; what to do with them.

Route segregation.

What the routes are.

How to determine whether a ticket is "east bound" or "west bound."

Month order segregation.

How to read quickly the date on the back of the tickets.

How many groups to make.

Road segregation.

The grouping of the roads on the five sheets.

How to arrange quickly the tickets in the order in which the roads appear on the sheets.

Tallying and recapitulating.

How to make the "gateway tally."

How to make the month road order tally.

What the recapitulation of the gateway tally sheet shows.

What the recapitulation of the month and road order tally shows.

Reports.

What information is required on the work report of a tally clerk.

How to keep an accurate record of the time distribution by jobs for this report.

Penmanship.

How to write neatly and legibly, especially in making figures.

The necessity for having railroad records neat and legible.

Arithmetic.

Addition and subtraction.

Checking and balancing accounts.

(Space left for additions.)

Supplementary Units

The Office of the Auditor of Passenger Accounts.

The organization of this branch of the Auditing Department.

The function of each bureau.

The passenger ticket. See page 29.

Ticket classifying and tallying.

Why it is necessary to make a separate gateway segregation for home interline and foreign interline tickets.

Why it is necessary to make a separate "government" class.

Why it is necessary to handle separately "Locals," "G. H. & S. A.," and "Intermediates."

Why it is necessary to make two separate tallies, one for gateways, and one for roads.

Why it is necessary that the two recapitulation sheets should balance.

Geography.

The location of the various lines of the railroad.

The location of the division points and gateways of the railroad.

The territory served by connecting railroads.

English.

Oral English in addressing officials and fellow employees.

The vocabulary of railroad terms used in the Auditing Department.

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the tally clerk, three of which are listed below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job next in line.

1	2
<i>One line of promotion</i>	<i>Another line of promotion</i>
From tally clerk in foreign interline bureau to:	From tally clerk in foreign interline bureau to:
(a) Ticket sorter in foreign interline bureau.	(a) Ticket sorter in foreign interline bureau.
(b) Ticket checker in foreign interline bureau.	(b) Ticket tracer in foreign interline bureau.

3

Another line of promotion

From tally clerk in foreign interline bureau to:

(a) Ticket sorter in foreign interline bureau.

(b) Sorter and checker in home interline bureau.

CARBON CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Receiving, Filing, and Arranging Bureau of the Freight Auditing Department.

Length of learning period: a few days.

Entrance requirements:

Age: seventeen or older.

Sex: female.

Special skill or training: none.

Personal qualifications: promptness, courtesy, some manual dexterity.

Educational qualifications: grammar school.

II. DUTIES

“Set up” Division Statements, Abstracts of Interline Waybills, and Waybill Correction Notices with from one to six carbons and tissue sheets, proceeding as follows:

Take sufficient quantity of carbons from cabinet.

Take quantity of the form to be set up from shelf where it is kept.

Obtain sufficient quantity of tissue sheets corresponding to the particular form.

Arrange sheets conveniently for rapid work in handling while seated at the table.

Set up the form with from one to six tissue sheets, using a rectangular tray open on two sides for keeping the edges of the papers straight.

When proper number of “set-ups” have been made, remove them from tray, tie in a bundle, write figure on top indicating number of carbons, and take to proper shelf.

Repeat the operation, varying the number of carbons and the form set up so as to keep a sufficient quantity of each ready for use.

Discard irregular forms when they are discovered.

When change in form to be set up necessitates change in size of carbon, return carbon in use to carbon cupboard and obtain carbon of proper size.

Discard carbon sheets as they become worn, smudged, wrinkled, or torn from handling.

Keep a record of number of “set-ups” made during the day.

From the record of “set-ups,” make a daily work report on the proper form.

Before going off duty put away carbons and forms on the table.

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Receiving, Filing, and Arranging Bureau.

Names of officials and fellow employees, and the general nature of their duties.

Location of supplies and materials used in the bureau.

Carbon paper.

How to handle the paper so as not to smudge the hands, the clothing, the paper itself.

How to insert the paper smoothly over the sheet on which the impression is to be made.

The "set-up."

How to adjust the original and tissue sheets evenly and smoothly, using the straight edging tray.

The number of set-ups to make in each pile.

Daily work report.

How to keep a record of the work done.

How to make up the daily work report.

(Space left for additions.)

Supplementary Units

Blank forms.

The nature and use of the forms handled.

The reason for the number of carbons used with each form.

English.

Oral English in addressing officials and fellow employees.

Importance of good English and good form in making reports.

Penmanship.

How to write neatly and legibly.

The importance of good penmanship.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The promotional possibilities open to the carbon clerk are rather limited. Three possible lines of promotion are suggested below.

1

One line of promotion

From carbon setting up clerk to:

- (a) Local waybill arranging clerk.
- (b) Interline waybill arranging clerk.
- (c) Abstract clerk.

2

Another line of promotion

From carbon setting up clerk to:

- (a) Typist (training as typist necessary for promotion).
- (b) Head typist.

3

Another line of promotion

From carbon setting up clerk to:

- (a) Comptometer operator (training as comptometer operator necessary for promotion).
- (b) Head clerk of Comptometer Bureau.

WAYBILL ARRANGING CLERK

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: Receiving, Filing and Arranging Bureau of the office of the Auditor of Freight Accounts.

Length of learning period: about one week.

Entrance requirements:

Age: seventeen or older.

Sex: female.

Special skill or training: none.

Personal qualifications: promptness, courtesy, neatness.

Educational qualifications: grammar school.

II. DUTIES

Handle local waybills as follows:

(At the "throwing out" desk.)

Obtain the bundles of waybills for the day and untie them.

Sort out the waybills from certain large stations and make a separate group of each.

Sort the remaining waybills into small alphabetical groups.

Tie the bundles and lay them aside for arranging.

(At the "arranging" desk.)

Take the waybills of each station or each alphabetical group and arrange them in numerical order.

Verify each waybill in each group for station, number, and date.

Remove "bad dates," take to proper book of waybills in the files and paste in proper place.

Remove any waybill found in wrong station group and place it in correct group.

After arranging waybills of each station or alphabetical group of stations, count them and tie them in bundles.

Write on the bottom of each bundle the number of waybills in the bundle, the date, and name of the clerk.

Take bundles to Local Bureau.

Make a record and daily work report of number of bundles ("books") handled.

Handle "interline forwarding" waybills as follows:

(At the "throwing out" desk.)

Obtain the bundles of waybills for the day and untie them.

Sort out the waybills from certain large stations and make a separate group of each.

Sort the remaining waybills into small alphabetical groups.

Tie the groups and lay them aside for arranging.

(At the "arranging" desk.)

Take the waybills of each station or each alphabetical group and arrange them in numerical order.

Verify each waybill in each group for station, number, and date.

Remove "bad dates," take to proper book of waybills in files and paste in proper place.

Remove any waybill found in wrong station group and place it in correct group.

Fold long waybills to uniform size.

Smooth out wrinkled waybills.

Mend torn waybills with tape.

"Straight edge" each pile of waybills.

Trim off any protruding edges.

Place blank protecting sheet under and over the bundle.

Place front and back cover on each bundle.

Tie the bundle and take it to the binding room.

Keep a record and make a daily work report showing number of
“books” (bundles) handled.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Receiving, Filing, and Arranging Bureau.

Names of officials and employees.

General nature of the work of the bureau.

Where the supplies and equipment used in the bureau are kept.

The waybill.

The difference between the local and “interline forwarding” waybill.

The necessary items on a waybill.

Sorting waybills.

What alphabetical groupings to make.

For which stations waybills should be assorted into separate groups.

Checking and arranging waybills.

The items on the waybill which must be observed by the clerk.

What to do with the waybill if any necessary items are missing.

What to do with “bad dates” and other waybills found in wrong groups.

How to make up the bundles preparatory to binding.

Making reports.

How to keep record of amount of work done.

How to make up the daily work report.

(Space left for additions.)

Supplementary Units

The waybill and its accompanying documents.

The journey of a waybill from its origin to the files.

The other documents which are made out with the waybill. The use of each.

The occasion for the various kinds of waybills.

English.

Oral English in addressing officials and fellow employees.

The meaning, use, and spelling of railway transportation terms, especially terms used in the auditing of freight accounts.

Penmanship.

How to write neatly and legibly.

The importance of good penmanship in clerical work.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the waybill arranging clerk, three of which are listed below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job in question.

1

One line of promotion

From waybill arranging clerk
to:

(a) Clerk in Local Bureau.

(b) Head clerk in Local
Bureau.

2

Another line of promotion

From waybill arranging clerk to:

(a) Clerk in Tracing Bureau.

(b) Head clerk in Tracing
Bureau.

3

Another line of promotion

From waybill arranging clerk to:

(a) Clerk in Comptometer Bureau.

(b) Head clerk in Comptometer Bureau.

CHECKING CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Tracing Bureau of the office of the Auditor of Freight Accounts.

Length of learning period: about two months.

Entrance requirements:

Age: seventeen or older.

Sex: female.

Special skill or training: none required, but vacancy would probably be filled by promoting a girl who had been setting up carbons or sorting or arranging waybills.

Personal qualifications: carefulness, thoroughness, dependability, neatness, accuracy, courtesy.

Educational qualifications: eighth grade.

Nature of the work:

The work consists in checking local forwarded waybills against the agents' local forwarded abstracts. The waybills are brought to this clerk's desk already arranged in alphabetical selling station order. The local forwarded abstracts must be sorted.

II. DUTIES

Handle local forwarded abstracts as follows:

Sort the local forwarded abstracts into two groups, "Prepaid" and "Not Prepaid."

Arrange the "Not Prepaid" abstracts into alphabetical, forwarding station order and file under the proper station.

Send the "Prepaid" abstracts to the Hollerith Bureau for card punching and subsequent verification.

When the "Prepaid" abstracts are returned, arrange them in alphabetical, forwarding station order and under each station in numerical order and lay them aside.

Check the local forwarded waybills against the local forwarded abstracts at the end of the month.

After checking send them to be bound and filed.

Check local forwarded waybills against local forwarded abstracts as follows:

Compare the number on each waybill with its number on the abstract. Check mark the number on the abstract.

Compare "advance" items and "prepaid" items. Check mark the items on the abstract.

Check mark the waybill if everything corresponds.

If waybill and abstract do not correspond, assign a correction notice number to both. (Get list of current numbers daily from head clerk and check them off as assigned.)

Make out in duplicate a correction notice, sign it, and send original to the forwarding agent, showing waybill number, abstract form number and date, name of station, explanation, and data as to correction.

File the carbon copy of the correction notice.

If any waybill does not appear on the abstract proceed as follows:

If waybill carries no "advances" or "prepaid" items, simply add it to the agent's abstract.

If waybill carries "advances" or "prepaid" items, make out a "dummy abstract" to cover it.

Retain the dummy till the agent's monthly account comes in.

If monthly account carries the items in question, file the dummy.

If monthly account does not show these items, or if they do not agree with those on the dummy, issue a correction notice instructing the agent to add them to his account, or correct them on it.

If an interline waybill has been changed back to a local waybill, proceed as follows:

Look up the interline abstract to find out whether the company is to get all or only a portion of the charges.

If the waybill has "advances" or "prepaid" items, make out an "office abstract" to cover, using black ink if charges are wholly local and red ink if charges are partly interline.

Send the "office abstract" to the proper desk for handling, after having checked it against the waybill.

If the waybill does not carry "advances" or "prepaid" items, simply add it to the agent's abstract, indicating on the abstract the interline waybill number, destination station, route, rate, and freight charges.

Make out a "destroy tag" in duplicate showing date, waybill number, station of origin, destination station, station to which changed, junction points, road, weight, and commodity if a car-load lot.

Send original to Hollerith Bureau.

Paste duplicate to interline abstract.

Remove the following waybills as they appear and send them to the cross reference desk for checking: "non-agency," "switching," "advances only," "prepaids only," "dead-head straight," "weights and charges."

Make out a daily work report every morning, showing number of waybills on hand, received, and checked during the previous day.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Tracing Bureau.

The nature of the business of the bureau and its relation to the Freight Auditing Department.

Names and duties of employees in the bureau.

The documents handled—their form and use.

The local forwarded abstract.

The local forwarded waybill.

The office abstract.

The dummy abstract.

The destroy tag.

The correction notice.

Arranging local forwarded abstracts.

How to distinguish between "Prepaid" and "Not Prepaid."

What disposition to make of each class of abstract.

How to arrange papers in alphabetical and numerical order.

Checking local forwarded waybills.

What data should appear on the abstract.

How to compare waybill and abstract.

How and under what conditions to make out a correction notice.

When to make out a "dummy abstract."

When and why an "office abstract" and a "destroy tag" must be made out.

What data to include on each of the above papers.

Which waybills are to be taken out and sent to the cross reference desk.

(Space left for additions.)

Supplementary Units

The Freight Auditing Department.

The general nature of the work.

The possibilities for promotion for a checking clerk.

The forms and papers handled.

The necessity for each form.

The history of each form from making to filing.

Record keeping.

The necessity for having a record of every transaction.

The various methods used in tracing transactions.

English.

Oral English in addressing officials and fellow employees.

Written English in filling out the forms used.

How to write a simple, clear, concise letter.

The vocabulary of railroad terms with special reference to those common to the Auditing Department.

The part good English plays in promotion.

Penmanship.

How to write neatly and legibly.

The necessity for having railroad records neat and legible.

The part good penmanship plays in promotion.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the checking clerk, three of which are listed below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job next in line.

1

One line of promotion

From checking clerk in tracing bureau to:

- (a) Clerk in claims bureau.
(Ability to dictate a good letter essential.)
- (b) Head clerk of claims bureau.

2

Another line of promotion

From checking clerk in tracing bureau to:

- (a) Comptometer operator.
- (b) Head clerk in comptometer bureau.

3

Another line of promotion

From checking clerk in tracing bureau to:

- (a) Clerk in typing bureau.
- (b) Head clerk in typing bureau.

JUNIOR CLERK IN RECHECKING BUREAU**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Rechecking Bureau of Freight Auditing Department.

Length of learning period: two weeks to one month.

Entrance requirements:

Age: probably not younger than seventeen.

Sex: male.

Special skill or training: none.

Personal qualifications: neatness, promptness, courtesy, retentive memory.

Educational qualifications: grammar school.

Nature of the work:

Interline accounts arise when freight is hauled over more than one road. Differences in the application of the rates and in the division of the freight charges between the two lines occur. A statement of these differences for each month's interline business is sent by one road to the other. When these differences are finally adjusted, a correction account is issued to make the accounts between the two roads correspond.

II. DUTIES

Trace unreported items on Statement of Differences in the adjustment of interline freight accounts as follows:

Referring to copy of Statement of Differences for data, fill out tracer form and send to foreign line's auditing department. (About 200 handled daily.)

File copy of tracer with copy of statement, marking thereon the pending date one month in advance.

If no answer is received by pending date, write follow-up letter. Attach copy of this letter to copy of statement in the file. Set new pending date.

If no answer is received by pending date, write special letter for signature of chief clerk. File a copy. Set new pending date.

If no reply is received by pending date, write personal letter to railroad in question for signature of Auditor of Freight Accounts.

When the Correction Account is issued, check it with Statement of Differences.

If the Correction Account is incorrect, make necessary notations and take them, with Statement of Differences, to clerk who issued the statement. Write letter to foreign line calling attention to inaccuracies. Follow up in one month with tracers. When the account is correct or when Statement of Differences is cancelled, close the file and transfer it to dead file.

File material as follows:

File the books of interline forwarded accounts alphabetically in road order and numerically under the road.

File tariff supplements or revisions numerically under the particular tariff, inserting the new in the place of the old. Place the old tariff supplements in the back of the book for reference.

File copies of all tracing or follow-up correspondence with the copy of the Statement of Differences referred to.

File copies of all stationery requisitions.

File "short order" notices with copy of requisitions.

Make stationery requisitions as follows:

At stated time make out weekly requisition for stationery required by bureau for ensuing week, showing thereon form, description, quantity on hand, quantity required, account or service to be charged, etc.

Get proper signatures and send to company stationer.

File a copy of requisition.

When material requisitioned is received, check it against requisition, and make necessary changes on stationery stock record.

If stationer can not fill an item on the requisition and sends "short order" notice, file same with copy of requisition.

Make new requisition to cover the short item on date indicated in "short order" notice.

Handle mail for the bureau as follows:

Once daily, obtain mail from mail bureau of the office.

Open the mail.

Read each communication to determine the subject and who should handle it.

Distribute mail to the proper persons.

Once daily, take mail to mail bureau.

Occasionally perform the following tasks:

On request from foreign lines, make copies of waybills and send to them.

On request go to record room, look up reportings on various waybills, see in what month's account waybill was reported, and bring information to clerk requiring it.

Do office errand work.

Act as messenger within the building.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Rechecking Bureau.

Names of all employees and the general nature of their work.

Where the supplies and equipment of the bureau are kept.

Tracing.

How to interpret the data on a Statement of Differences.

How to fill out the tracer.

How to write a simple, concise, follow-up letter.

When and why it is necessary to refer a matter to an official for handling.

How to check a Correction Account against a Statement of Differences.

Filing.

The system used in filing books of interline forwarded accounts.

How to file new tariffs or revisions in the proper books.

How to file tracers and follow-up letters dealing with Statement of Differences.

How to file copies of requisitions and short order notices.

Making stationery requisitions.

The various kinds of stationery and blank forms used in the office.

How to proceed in making stationery requisitions.

How to add and subtract accurately and quickly.

How to check the material received against the copy of the requisition.

Handling mail.

The duties performed by each employee in the bureau to whom mail is distributed.

When to get and distribute incoming mail.

When to collect the outgoing mail.

Regarding occasional duties.

How to conduct simple correspondence with other companies.

The system used in filing waybills in the record room.

The location of the supplies and equipment used in the office.

The location of the various offices and bureaus with which the Rechecking Bureau has dealings.

(Space left for additions.)

Supplementary Units

The Office of the Auditor of Freight Accounts.

The various bureaus in this department and the general nature of their work.

The relation of the work of the Rechecking Bureau to the work of the Office of the Auditor.

Why it is necessary to have a Rechecking Bureau.

The documents handled.

The importance and use of the various documents handled.

The necessity for the various documents.

The necessity for "pending" correspondence.

English.

Oral English in addressing officials and fellow employees.

How to write or dictate a clear, concise letter.

The vocabulary of railroad terms with special reference to those common to the Rechecking Bureau.

The part good English plays in promotion.

Penmanship.

How to make neat, legible figures.

How to write neatly and legibly.

The necessity for having railroad records neat and legible.

The part good English plays in promotion.

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the junior clerk in the rechecking bureau. Three lines are listed below. The units of training necessary in preparing for promotion along any of these lines may be found by consulting Section III of the analysis of the job next in line.

1

One line of promotion

From junior clerk in rechecking bureau to:

- (a) Clerk in rechecking bureau.
- (b) Head clerk of rechecking bureau.
- (c) Chief clerk of department.
- (d) Assistant auditor of freight accounts.
- (e) Auditor of freight accounts.

2

Another line of promotion

From junior clerk in rechecking bureau to:

- (a) Clerk in interline forwarding bureau.
- (b) Head clerk of interline forwarding bureau.
- (c) Chief clerk of department.
- (d) Assistant auditor of freight accounts.
- (e) Auditor of freight accounts.

3

Another line of promotion

From junior clerk in rechecking bureau to:

- (a) Clerk in rate revising bureau.
- (b) Head clerk of rate revising bureau.
- (c) Chief clerk of department.
- (d) Assistant auditor of freight accounts.
- (e) Auditor of freight accounts.

ASSISTANT INDEMNITY BOND CLERK

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: Indemnity Bond Bureau in the Treasury Department.

Length of learning period: about six weeks.

Entrance requirements:

Age: ordinarily not younger than eighteen.

Sex: male or female.

Special skill of training: preference given to person familiar with freight documents or to an employee in the Treasury Department.

Personal qualifications: carefulness, dependability, courtesy, neatness.

Educational qualifications: eighth grade or higher.

II. DUTIES

(In regard to correspondence.)

Open the incoming mail and sort it according to the filing system used in the bureau.

Match up correspondence with files or make new files as needed.

Turn over correspondence to head clerk for handling.

Prepare the outgoing mail for sending.

(In regard to indemnity bonds.)

Number each bond as it is received.

Make a file for each bond.

When a person calls at the office for a bond, give him the proper form.

(In regard to recording, indexing, and filing.)

In the record book, make an entry for each bond showing station, date, amount and kind of bond, principal, and guarantor.

Make an index card for each bond giving the same data.

File the index cards and the bonds.

Keep the files in order and the closed files properly transferred.

(In regard to supplies.)

Put away the supplies for the bureau as received (carbon paper, forms, various kinds of bonds, etc.).

Take out supplies as they are needed in the bureau.

Inform head clerk when new supplies should be ordered.

(In regard to the daily work report.)

Keep a record of the amount and character of work done each day and turn it over to head clerk.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Indemnity Bond Bureau.

The nature of the business of the Indemnity Bond Bureau and its relation to the Treasury Department.

Indemnity bonds.

The various kinds of indemnity bonds.

The circumstances which call for each kind of bond.

When an indemnity bond is properly executed.

The rights, duties, and obligations of the parties to an indemnity bond.

How to proceed in case of cancellation or forfeiture.

The duties of the local agent in regard to bonds.

What officials should be advised when bonds are filed.

Geography.

The location of the company's lines and divisions.

Junction points with other lines.

Recording and filing.

The entries on the bond of which record must be made.

The office system of recording and filing bonds.

(Space left for additions.)

Supplementary Units

The Treasury Department.

Its personnel.

The nature of the work performed by each bureau in the department.

Freight.

The different kinds of bills of lading.

What to do when an order bill of lading is reported lost.

Regulations of the Interstate Commerce Commission regarding the payment of freight charges.

The location of freight stations, especially at junction points.

Filing and recording.

The systems of filing used in different offices.

The various systems of keeping office records.

English.

How to write or dictate a clear, concise business letter.

The vocabulary of this phase of railroad business.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The first line of promotion listed below is the most logical one for the assistant indemnity bond clerk to follow. Two other possible lines are also given.

1	2
<i>The logical line of promotion</i>	<i>Another line of promotion</i>
From assistant indemnity bond clerk to:	From assistant indemnity bond clerk to:
(a) Head clerk of indemnity bond bureau.	(a) Abstract clerk.
(b) Chief clerk.	(b) Chief clerk.
3	
<i>Another line of promotion</i>	
From assistant indemnity bond clerk to:	
(a) Distribution clerk.	
(b) Chief clerk.	

DISTRIBUTION CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Pay Check Bureau of Treasury Department.

Length of learning period: one month or more.

Entrance requirements:

Age: eighteen or older.

Sex: male or female.

Special skill or training: none, though vacancies are usually filled by promoting junior clerks.

Personal qualifications: dependability, alertness, accuracy, courtesy, promptness.

Educational qualifications: preferably more than grammar school.

II. DUTIES

(Regarding payroll vouchers.)

Countersign payroll vouchers.

Examine and verify them against the payroll.

List all payroll vouchers, according to destination, on payroll voucher transmittal slips, in payroll order.

Prepare payroll voucher envelopes.

Inclose payroll vouchers and corresponding transmittal slip in proper envelope form.

Seal the envelope with wax, and weigh it.

Prepare express waybills for payroll vouchers going to points where there is an agent.

Make a record, on the proper form, of all vouchers sent.

Number each waybill and corresponding envelope with identical number.

Take a receipt from the express company's representative who calls for the vouchers.

Prepare registered baggage waybills for vouchers going to points where there is no agent.

Stamp these waybills and the voucher envelopes with the "registered" stamp.

Deliver them to the central mailing bureau.

(Regarding time vouchers.)

Examine, verify and make proper record of time vouchers.

Prepare time voucher transmittal slip.

Send vouchers to the agent accompanied by the proper transmittal slip in the proper envelope form.

(Regarding individual requests for pay.)

When person calls have him establish his identity.

Deliver his voucher to him.

Take his receipt for the voucher on the proper form.

(Regarding the sending out of individual payroll vouchers.)

Prepare the proper transmittal slip.

Prepare the proper receipt form.

Mail the payroll voucher, accompanied by these forms, enclosed in proper envelope, addressed to the employee.

(Regarding the checking of transmittal slips.)

Check returned transmittal slips to see that they have been properly signed and vouchers delivered.

Turn over undelivered vouchers to proper clerk.

Send out tracers for transmittal slips and receipts not returned.

File all returned transmittal slips and receipts.

(Regarding payrolls.)

Sort all payrolls according to divisions of the road.

Bind and file them.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

Pay Check Bureau.

Names of the employees, location of their desks, and the general nature of the duties performed by each.

The nature of the business of the bureau and its relation to the Treasury Department.

Payroll and time vouchers.

The difference in form and use between the payroll voucher and the time voucher.

The items which are necessary on a voucher.

What to do in case an irregularity is discovered on a voucher.

How to operate the countersigning machine.

How to prepare vouchers, transmittal slips, and voucher envelopes.

How to prepare express waybills and registered baggage waybills.

Which voucher transmittal slips and which voucher envelopes are required for each lot of vouchers.

How to proceed when an individual employee calls for his voucher.

How to proceed in preparing to send out individual payroll vouchers.

How to make up a record of vouchers transmitted.

Returned transmittal slips and receipts.

What items to check on the returned transmittal slips and receipts.

What disposition to make of returned (unclaimed) vouchers.

When to send out tracers for unreturned transmittal slips and receipts.

The system used by the company in filing returned transmittal slips and receipts.

Payrolls.

How to sort payrolls according to division of the road.

How to bind them for filing.

The system used by the company in filing them.

Transmitting documents.

When to send vouchers by express and when as registered baggage.

How to seal envelopes with wax and the importance of sealing them securely.

How to weigh mail.

(Space left for additions.)

Supplementary Units

The Treasury Department.

The nature of the work of the department.

The lines of promotion open in the department.

The forms handled.

The use of the various office forms and their history from making to filing.

The nature of the express receipt and the baggage waybill.

Business English.

Oral English in addressing fellow workers and individuals who call at the office.

How to write a clear, concise, correct business letter.

How to fill in form letters.

Business writing.

The necessity for having treasury records legible and neat.

The part good penmanship plays in promotion.

How to write neatly and legibly.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

There are several promotional possibilities open to the distribution clerk. Two lines of promotion are suggested below.

1	2
<i>One line of promotion</i>	<i>Another line of promotion</i>
From distribution clerk to:	From distribution clerk to:
(a) Garnishment clerk.	(a) Teller.
(b) Chief clerk.	(b) Chief clerk.
(c) Assistant cashier.	(c) Paymaster.
(d) Cashier.	(d) Cashier.
(e) Assistant treasurer.	(e) Assistant treasurer.

MANIFEST CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: General Freight Offices.

Length of learning period: one month to two months.

Entrance requirements:

Age: probably not under twenty or twenty-one years.

Sex: male or female—usually male.

Special skill or training: familiarity with the work of a general freight office.

Personal qualifications: accurate, neat, prompt, reliable.

Educational qualifications: eighth grade or higher.

Nature of the work:

The manifest system is designed to insure prompt movement of through carload freight shipments. Reports on the movement of such freight are mailed and telegraphed to the general freight office of the company, where a careful record is kept of its progress to destination. The supervisory and clerical work incident thereto is performed by manifest clerks.

II. DUTIES

Examine reports of manifest freight, passing reports, "set out," and "pick up" reports to see that they have been properly filled out.

Index the manifest reports and paste them in the proper books.

Make a record of any delay in the movement of manifest cars.

Make a record of the number of hours between divisions in the movement of manifest trains.

Make a record of the average daily delays in the movement of manifest freight between divisions.

Send out postal cards to consignees to inform them of the progress of manifest freight toward destination.

Make up reports at stated intervals showing the amount of manifest freight handled in each direction, through each gateway, and the promptitude with which it was handled.

Conduct correspondence relative to the business of the bureau.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The General Freight Office.

The organization and function of the General Freight Office.

The personnel of the General Freight Office force.

The documents handled.

What information should appear on reports of manifest freight, passing reports, "set out" and "pick up" reports.

How to interpret the data on these reports.

What records to make from these reports.

The movement of manifest freight.

Regulations of the company regarding the movement of manifest freight.

Time schedules of the company's manifest freight trains.

Which stations should send in reports and how often they should be sent.

Geography.

Nature of the territory served by the company: location of mountains, rivers, valleys, important cities and towns.

Climatic and weather conditions of the various sections.

Crops and industries of different parts of the territory.

Location of the company's lines, divisions, manifesting stations, and terminals.

English.

Ability to write or dictate a good business letter.

The vocabulary of this phase of the railroad business.

IV. PROMOTIONAL POSSIBILITIES

There are many promotional possibilities open to the manifest clerk. Three lines of promotion are listed below.

1

One line of promotion

From clerk in manifest bureau
to:
(a) Clerk in tariff bureau.
(b) Head clerk in tariff
bureau.

2

Another line of promotion

From clerk in manifest bureau to:
(a) Clerk in rate bureau.
(b) Head clerk in rate bureau.

3

Another line of promotion

From clerk in manifest bureau to:
(a) Head clerk in manifest bureau.

INDEMNITY BOND CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Treasury Department.

Length of learning period: about three months.

Entrance requirements:

Age: twenty-one or older.

Sex: male or female—usually male.

Special skill or training: knowledge of railroad organization, with special reference to the handling of freight, and credit matters.

Personal qualifications: accurate, deliberate, neat, courteous, ability to assume responsibility, promptness.

Educational qualifications: eighth grade or higher.

II. DUTIES

(As to bonds.)

Examine all bonds (indemnity, demurrage, reciprocal) to see that they have been properly executed.

Give each bond a number.

Keep record book and card index of bonds.

Notify proper officials when bonds are filed with the bureau.

Notify agent when bond is not properly executed.

Handle requests for cancellation.

(As to correspondence.)

Conduct all correspondence, relative to the business of the bureau, with station agents, guarantors, shippers, and others.

(As to filing.)

Keep file of correspondence and of bonds.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

Indemnity bonds.

The various kinds of indemnity bonds.

What circumstances call for each kind of bond.

When an indemnity bond is properly executed.

The rights, duties and obligations of the parties to an indemnity bond.

How to proceed in case of cancellation or forfeiture.

The duties of the local agent in regard to bonds.

What officials should be advised when bonds are filed.

Freight.

The different kinds of bills of lading.

What to do when an order bill of lading is reported lost.

Regulations of the Interstate Commerce Commission regarding the payment of freight charges.

The location of freight stations, especially at junction points.

Correspondence.

How to write or dictate a clear, concise letter relative to any work of the bureau.

The vocabulary of this phase of the railroad business.

Filing.

The system used in the office for filing correspondence and bonds.

Geography.

The location of the company's lines and divisions.

Junction points with other lines.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The logical line of promotion for the indemnity bond clerk is as follows:

(a) Assistant chief clerk.

(c) Assistant cashier.

(b) Chief clerk.

(d) Cashier.

GARNISHMENT CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Treasury Department.

Length of learning period: about two months.

Entrance requirements:

Age: over twenty-one.

Sex: male.

Special skill or training: vacancies ordinarily filled by promoting a clerk in the Treasury Department.

Personal qualifications: accuracy, sound judgment, dependability.

Educational qualifications: eighth grade or higher.

II. DUTIES

(In regard to attachments or garnishments.)

Record the date of service, plaintiff, defendant, court, number of the case, and time set for hearing whenever a writ of attachment or garnishment is served against the salary or wages of any employee of the company.

Notify the officer, under whom the employee is working, of the facts.

File the record of attachment.

See that the pay check is held in the office.

Make a notation on the writ showing the amount of money being held.

File the record thus completed and hold till disposition of the case by the court or amicable settlement by the creditor and debtor.

(In regard to assignment of wages by employees.)

When notice of assignment comes in, see that the employee's pay check is held and payment made to the assignee.

(In regard to wages due deceased employees.)

Retain the pay checks of deceased employees.

Authorize payment of money due deceased employee to person presenting letters of administration.

Authorize payment of money to widow of the deceased upon delivery by her of a properly executed indemnity bond.

Authorize payment of money to other legal heir of the deceased upon delivery of a properly approved affidavit and a properly executed indemnity bond.

(In regard to lost pay checks.)

Secure a properly executed indemnity bond from employee who has lost his check.

After the lapse of a specified time, authorize the issuance of a new check to the employee.

Authorize cancellation of the bond after a certain number of years.

Authorize forfeiture of the bond in case lost check has been paid by the company.

(In regard to forged pay checks.)

Secure the amount of the check from the bank or from last endorser of check.

Deposit same with cashier.

Request authority to prepare a cash voucher for the employee.

(In regard to records, filing and correspondence.)

Record in proper books or on proper forms full details of all cases handled.

Conduct all correspondence relative to the cases handled.

File all records and all correspondence relative to the cases handled.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units

The Treasury Department.

. The organization of the Treasury Department.

The nature of the business in each bureau of the department.

Attachments, garnishments, and assignments.

The various steps in the legal process from attachment, or garnishment, to final settlement.

The record which must be made of attachments and garnishments.

The persons who should receive notification of attachments and garnishments.

Wages of deceased employees.

Who is entitled to receive the wages of deceased employees and upon what conditions.

How to safeguard the interests of the company.

Lost pay checks.

When a new check may be issued.

Why it is necessary to require a bond.

Forged pay checks.

How to proceed to collect on the check.

How to proceed to reimburse the employee.

Correspondence.

How to write or dictate a clear, concise letter regarding any matter handled by the bureau.

The vocabulary of this phase of the railroad business.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The logical line of promotion for the garnishment clerk is as follows:

(a) Chief clerk.

(b) Assistant cashier (or paymaster).

(c) Cashier.

PART TWO

SUGGESTIVE INSTRUCTIONAL MATERIAL

BACKGROUND TOPICS

Listed below are a number of subjects for instruction related to the business of railroad transportation. The material may profitably be used in part-time, evening, or full-time schools, in classes of juniors who are engaged in, or who contemplate entering upon clerical work in railroad offices. The subjects included in the list are such as will give young workers a broader foundation of information related not only to railroad work but also to their duties as wage earners and citizens.

Corporations.

- The definition of a corporation.
- Distinctive characteristics of corporations.
- How corporations are created.
- The capital stock of a corporation.
- Rights and liabilities of stockholders as owners of the corporation.
- Duties and responsibilities of directors and officers.
- Powers and liabilities of corporations.
- Dissolution of corporations.
- Different kinds of corporations.
- The railroad company as a quasi-public corporation.
 - General nature of its business.
 - Its departmental organization.
 - Functions of the various departments.
 - Legal restrictions due to the nature of the business.

Economics and Geography.

- The more important geographic features of the country.
 - Mountain ranges, valleys, rivers, harbors.
 - Location of important railroad bridges.
- The territory served by the company.
 - Important geographic features.
 - Important cities and towns.
 - Crops and products moving into and out of the territory.

The part played by railroads in the development of the territory which they serve.

Influence of economic, financial, and industrial conditions on the business of the railroad.

The importance of the service of transportation to the public, with special emphasis upon the service of the department in which the employee works.

The territory served by competing companies and small tributary companies.

Principal railroad centers of the United States.

What makes a city.

Why some towns grow in point of population and others do not.

Principal railroad centers of the State.

Current abbreviations of the names of cities and states.

The comparative advantages of railroad and water transportation as to time, cost, convenience, etc. (Dunn, S. O., *The American Transportation Question*, Chapters IX, X.)

Transportation Charges. (Dunn, S. O., *The American Transportation Question*, Chapters I–IV, XI, XII.)

The relation between the three factors of cost, service, and financial return—their interdependence.

Passenger rates.

Freight rates.

Why rates cannot be based mainly on distance.

Cost of the service. (Various kinds of costs.)

Value of the service.

The long and short haul.

“What the traffic will bear.”

Classification and discrimination (low grade, long distance, and competitive traffic).

Why discrimination is necessary.

Regulation of charges.

Railroad Regulation.

The Interstate Commerce Commission.

State Railroad Commission.

Judicial decisions.

Business Law.

The elementary essentials of an enforceable contract.

Agreement (offer and acceptance).

Competency of parties.

Absence of fraud, duress, or undue influence.

Good and sufficient consideration.

Legality of subject matter.

Particular form (for certain contracts).

The passenger ticket and the bill of lading as forms of contracts.

The distinction between a common carrier and a private carrier.

The private carrier:

Freedom to make separate terms with each patron.

Freedom to refuse to contract for any reason.

Freedom from absolute liability.

The public or common carrier:

Standardization of the contract with patrons.

Restrictions to the right to refuse to contract.

Limitations to absolute liability.

Bailments, with special reference to public or common carriers.

Definition and classification of bailments.

The mutual benefit bailment.

The rights and obligations of bailor and bailee.

The right of stoppage in transit.

The railroad company as a special class of bailee.

Negotiable instruments.

Various kinds of negotiable instruments.

The order bill of lading as a negotiable instrument.

The use of the order bill of lading.

The conditions on the back of a bill of lading.

Guaranty and suretyship.

The obligations of the guarantor or surety.

The rights of the guarantor or surety.

Indemnity bonds.

When and why they are required of patrons of the railroad company.

When and why they are required of employees of the railroad company.

Related History.

How the first settlers came to California.

How commodities were transported to California in the early days.

Advent of the railroad. The first line in California connecting the East and the West by rail.

Railroad influence. (Before the days of the railroad it was thought impossible that a senator or representative from the Pacific Coast could form a part of our Congress at Washington, as it was said they would spend so much time coming and going that their attendance would not be worth while. The railroad solved this and many similar problems.)

The changes needed in the Constitution due to present rapid transportation.

Early colonial history and early United States history with reference to customs of the times, delivery of mails, development of railroads, and consequent development of the West.

Railroad Documents.

The bill of lading.

The shipping order.

The passenger ticket.

The history of these documents from making to filing.

The documents to which they give rise within the company.

Growth of Large Railroad Systems.

The Pennsylvania Lines.

The New York Central.

The Chicago and Northwestern.

The Northern Pacific.

The Atchison, Topeka and Santa Fe.

The Union Pacific.

The Southern Pacific.

Local Railroad Development.

Large competing systems.

Small tributary roads.

Biographies of Well Known Railroad Men.

Matthias W. Baldwin (1795–1866). See Appleton's Cyclopaedia of American Biography.

Daniel Drew (1797–1879). See *The Book of Daniel Drew: A Glimpse of the Fisk-Gould-Tweed Regime from the Inside*, by Bouck White. Doubleday, Page and Company, 1910.

Peter Cooper (1791–1883). See *Peter Cooper*, by R. W. Raymond. The Riverside Biographical Series, No. 4. Houghton, Mifflin and Company, 1901.

John Murray Forbes (1813–1898). See *An American Railroad Builder*, by Henry Greenleaf Pearson. Houghton, Mifflin and Company, 1911.

Jay Gould (1836–1892). See *Chapters of Erie and Other Essays*, by Charles F. Adams, Jr. and Henry Adams. J. R. Osgood and Company, 1871.

Edward H. Harriman (1848–1909). See New International Encyclopedia.

James J. Hill (1838–1916). See *Little Journeys to the Homes of Great Business Men: James J. Hill*, by Elbert Hubbard. The Roycrofters, East Aurora, New York, 1909.

George M. Pullman (1831–1897). See *The Story of the Pullman Car*, by Joseph Husband. A. C. McClurg and Company, 1917.

George Stephenson (1781–1848). See *Railroads: Their Origin and Problems*, by Charles F. Adams. Putnam, 1878. Also *George and Robert Stephenson*, by Samuel Smiles. Harper and Brothers, 1868.

Lord Strathcona (Donald Alexander Smith) (1820–1914). See *Lord Strathcona: The Story of His Life*, by Beckles Willson. Methuen and Company, London, 1902. Also *Strathcona and the Making of Canada*, by W. T. R. Preston. McBride, Nast and Company, New York, 1915.

Cornelius Vanderbilt (1794–1877). See *A Chapter of Erie and Other Essays*, by Charles F. Adams. Also New International Encyclopedia, Second Edition.

Henry Villard (1835–1900). See *Memoirs of Henry Villard*. Houghton, Mifflin and Company, 1904.

The State Industrial Welfare Commission.

The conditions which made necessary the creation of the Commission.

The scope of its authority.

The beneficial regulations of the Commission in regard to the work of minors including:

Age, rate of pay, hours of work, overtime, day of rest, lighting of work rooms, ventilation, temperature, sanitary conditions, fire exits, etc.

The State Industrial Accident Commission.

The conditions which made necessary the creation of the Commission.

The scope of its authority.

The regulations of the Commission in regard to the employment of minors.

Health and Hygiene.

Personal cleanliness and neat appearance as an asset in business.

The care of the teeth, hair, and hands.

The right kind of food, exercise, and clothing.

The importance of proper exercise, recreation, and rest.

The amount of sleep necessary for the proper performance of one's work.

The value of correct bodily posture when working at a desk.

How to protect one's self when going out in wind or rain.

Business Ethics and Decorum.

Honesty in the performance of one's duties, even when not under direct supervision.

Appropriate manners toward officials and fellow workers.

Responsibility of the employee in maintaining the good reputation of the company and upholding its ideals.

The importance of holding as confidential any information which might be of use to competitors.

The important part played by politeness and courtesy in promotion.

Citizenship.

Necessity for regulations in civic and business life.

The necessity for the regulation of public utilities.

The value of coöperation in civic and business life.

The demands of good citizenship upon railroad employees.

The contribution every good citizen should make toward the working order.

SAMPLE LESSON PLANS

The lessons below are intended to serve as suggestions for instructors in outlining additional lessons on the same topics and on any other topics in the instructional material. The attempt has been made to organize the lesson plans so that questions and discussions are substituted for the lecture method.

I. THE SHIPPING ORDER AND THE WAYBILL

Aim: To teach a part of the work in a Freight Station by following these two documents as they pass through the hands of various Freight Station Clerks. (A lesson for junior waybill clerks.)

1. Who receives the freight when it comes to the station?
2. What does he do with the freight?
3. What notations does he make on the Shipping Order? Why?
 - a. What is a Shipping Order?
 - b. What is a Load Tag?
4. To what clerk does the Receiving Clerk now send the Shipping Order?
5. What information does the Rate Clerk insert in the Shipping Order?
6. After inserting the weight, rate, charges, commodity and routing, to what clerk does he send the Shipping Order?
7. What does the Billing Clerk now do? What now happens to the Shipping Order?
8. After the Billing Clerk has made out the Waybill who gets it?
9. Why should the Yard Master receive the Waybill?
10. What does the Yard Master do with the Waybill?
11. What use has the Conductor for the Waybill?
12. When the freight arrives at destination, what does the Conductor do with the Waybill?
13. What do the Checking and Revising Clerks do with the Waybill? Why? To whom do they now pass it?
14. What does the Expense Billing Clerk do? To whom does he pass the Waybill?
15. What use does the Abstract Clerk make of the Waybill?
16. What now happens to the Waybill?
17. What departments in a large Freight Station are made necessary by this work with Shipping Order and Waybill?
18. In a small country station who does all of the above work?
19. Why are departments necessary in one case and not in the other?

Note: A similar lesson might be developed to teach the work of the various bureaus through which the Waybill subsequently passes in the Office of the Auditor of Freight Accounts.

II. GEOGRAPHY

Aim: To teach junior employees the facts of geography which will be of practical value to them as employees of railroad companies.

1. Name the States into which your company's lines extend?
2. Draw quickly a rough outline map of these States and trace on it your company's main lines to their terminal cities.
3. Which of these cities are served directly by other large competing roads?
4. Does the road of any other company parallel the road of your company to these cities?

If so, compare the nature of the country traversed by both roads as to mountain ranges, rivers, deserts, valleys. Of what importance is this?

5. Make a list of the important commodities originating in the territory traversed by your company's main lines.
 - a. When do these commodities move?
 - b. From which main centers?
 - c. What is their destination?
 - d. Which yield most revenue to your company per carload?
Which least? Why the difference?
6. Make a list of the more important commodities which move into the territory served by your company.
 - a. Does the outbound movement of commodities coincide in time with the inbound movement?
 - b. What is the relation between freight costs and the simultaneous interchange of commodities?

III. THE PASSENGER TICKET

A lesson for junior employees in the office of the Auditor of Passenger Accounts.

Aim: To develop a clear understanding of the functions of the various bureaus in the auditing department.

1. Name the different kinds of tickets which your company might issue to a person (not an employee) for transportation exclusively over its own lines.
 - a. Why are there so many kinds of tickets?
 - b. How can a railroad company afford to issue a commutation book, an excursion ticket, or a round trip ticket at a lower rate than that at which it sells a single one way ticket?

- c. Name some of the company's expenses which would remain unchanged whether the company carried fifty passengers or two hundred on a certain local train.
 - d. Thinking of your own department, name some expenses which would increase under the above circumstances.
2. What is a home interline ticket? A foreign interline ticket?
 3. What four classes of home interline tickets might your company issue to an individual?
Why does your company make a separate classification of "government" tickets?
 4. Is your company under any special obligation to the government in the matter of carrying government passengers? How did this obligation arise?
 5. Name some of the different kinds of tickets, exclusive of excursion tickets and government tickets, which your company might issue to carry a number of individuals in a single party going by the same train to the same destination.
 6. During a certain month your company honors five hundred tickets of a certain foreign line. Tell as fully as you can about the clerical work and reports to which that circumstance gives rise.

IV. CORRESPONDENCE

Aim: To teach juniors to write clear, concise English on topics related to their work in railroad offices.

1. Your friend contemplates coming to California. Write him a letter urging him to come via the lines of your company. Give a few good reasons why he should come that way. Do not write more than one page.
2. Compare this letter with some of those written by other members of the class, as to good English, clearness, brevity, force of the arguments or reasons presented.
3. You discover in checking tickets that an agent has failed to include a certain ticket on his "Daily Report of Home Interline Tickets Sold." Write a letter which must be courteous, brief, and clear, calling his attention to the omission, to the rule violated, and giving him proper instructions.
4. Discuss similar letters written by various members of the class.
5. Write a brief paper telling about the organization of the Office of the Auditor of Freight (or Passenger) Accounts.
6. Write a brief paper telling in some detail of the work performed in the bureau in which you are employed.

V. LAW

Aim: To teach the elements of law relating to contracts.

Reference: Huffcut, E. W., *Elements of Business Law*. Ginn and Company. See chapters on Contracts and chapters on Bailments.

1. You and your friend meet and agree to dine together. Can the agreement be enforced by either of you? Why?
2. You and your friend agree together as follows: You are to take a case of eggs for him in your automobile to Livermore, for which he is to pay you three dollars. You later change your mind and decide not to take the eggs. Has he any grounds for legal action against you? Why?
3. What are the essentials of an enforceable agreement?
4. You deliver freight to the railroad company; the company accepts it, and the necessary documents are made out and signed. To what have the two parties to the contract agreed?
5. What is the difference between the carriers in questions two and four? Could either of the two carriers decline to enter into the agreement under ordinary circumstances?
6. Name some of the responsibilities of the carrier in question two.
7. Name some of the responsibilities of the carrier in question four as distinct from those of the former carrier.
8. Mention some contracts which the parties in question two would be forbidden by law from entering into. Why are such restrictions imposed?
9. Mention some legal restrictions to the agreements between the parties in question four. Why are such restrictions necessary?

VI. THE CORPORATION

Aim: To teach young workers in a corporation the distinction between a corporation and a partnership.

1. You rent a news stand at which you sell newspapers and magazines. You wish to expand your business to include a soda fountain, but have not sufficient capital. Name several ways of obtaining the necessary capital.
2. You are unable to float a loan because you can not give sufficient security, but Mr. Blank is willing to furnish the necessary capital and go into partnership with you. You decide to accept his offer. From your point of view what are some of the advantages and disadvantages of the partnership arrangement? Are there any legal steps necessary before you may form the partnership?

3. Assuming that you both own an equal interest, who owns and manages the business?
4. Assuming that you agree, can you without legal process do any of the following acts:
 - a. Dissolve the partnership?
 - b. Put a thousand dollars additional capital into the business?
 - c. Change to the restaurant business?
5. The town is growing rapidly and you wish to buy the building and greatly expand your business. Mention some objections to borrowing money for the purpose. If you decide not to borrow money, name two other ways in which you may expand the business.
6. Name some of the advantages and disadvantages of forming a new partnership of fifty persons, for example.
7. You decide to form a corporation. Name the necessary steps. Name some of the advantages in this form of business organization.
8. What is a charter? What information does it contain?
9. Why is legal sanction necessary to the formation of a corporation?
10. Who owns the corporation? Assuming that there are one thousand stockholders, how do they provide for the conduct of the business owned by them? If you and your former partner own between you fifty-one per cent of the stock, what power does that give you and him in the conduct of the affairs of the corporation?
11. Mention some disadvantages to the corporate form of organization? Do these disadvantages vary in different states?
12. Can the corporation do any of the following acts without legal sanction:
 - a. Dissolve?
 - b. Put additional capital into the business?
 - c. Change the nature of the business?
13. Sum up the differences between partnerships and corporations as brought out in the discussion.
14. Is the company which employs you a partnership or a corporation?

VII. TRANSPORTATION CHARGES

Aim: To teach young workers in railroad offices the elementary principles of rate making.

1. Assume that you own a five-ton auto truck and that you are engaged in general hauling business; that you make two trips daily between South Berkeley and Albany, stopping at West Berkeley on the way.
2. Name some of the costs which remain substantially the same irrespective of the volume of business you handle.
3. Name some of the costs which increase or decrease with the volume of business.
4. Can you afford to charge less for your services if you carry a load both going and returning? Why?
5. Assuming that you charge one dollar for hauling a certain quantity of coal to Albany, would you be willing to haul the same quantity to West Berkeley for fifty cents? Why?
6. What justification would you have for making different charges for the following:
 - a. 500 lbs. of coal in sacks?
 - b. 500 lbs. of wood shavings in sacks?
 - c. 500 lbs. of eggs in crates?
 - d. 500 lbs. of dynamite in boxes?
 - e. 500 lbs. of crushed rock?
7. Why can the shipper of eggs afford to pay you more than the shipper of coal?
8. How high can you make your charge for hauling any commodity, provided you have no competition, and still get the business?
9. You charge one dollar for hauling 500 lbs. of coal. What justification would you have for charging one dollar for carrying a diamond ring which you could put in your pocket?
10. Assuming that you are competing with another man for the business between Albany and South Berkeley, how low can either of you afford to make your charges? How high can you make them?
11. Apply all of the above questions to the railroad business.

RAILROAD TRANSPORTATION TERMS

abstract	freight, dead or slow	R. F. & A. bureau
advertising stock	freight, local	requisition
room	freight, manifest	route
agent	freight office	schedule
assignment	freight rates	scrip
attachment	freight solicitor	selling station
auditor	freight station	seniority
bad date	freight, through	set-out report
baggage	freight, time	shipper
bailments	freight traffic depart-	shipment
bill-of-lading	ment	shipping order
bond, demurrage	garnishment	shipping papers
bond, indemnity	gateway	short haul
bond, reciprocal	general freight office	siding
bureau	gondola	stockholder
cancellation	guarantor	suretyship
car list	Hollerith machine	tariff
claims bureau	home interline ticket	tariff revision
class rates	house track	tariff supplement
classification	interline waybill	terminal
commodity	invoice	ticket, cancelled
commodity rates	junction point	ticket checker
common carrier	legal entity	ticket, children's
commutation book	local waybill	ticket, clergy
consignee	long haul	ticket, commutation
consignor	manifest	ticket, excursion
consolidation	negotiable instru-	ticket, first class
contracts	ment	ticket, immigrant
dead-head	non-agency	ticket, interline
delivery receipt	notice of arrival	ticket, local
demurrage	off-line representative	ticket, return
department	operating expenses	ticket, round trip
destination	order bill-of-lading	ticket, one-way
destroy tag	O. S. & D. depart-	ticket, special rate
division	ment	ticket, through
dummy abstract	passenger	time table
export bill-of-lading	pass	time voucher
export declaration	passing report	tracer
express	payroll voucher	tracing bureau
fixed charges	pick-up report	tracing date
flat-car	point of destination	traffic
follow-up	point of origin	train mile
foreign car	public carrier	transmittal slip
foreign interline	public utility	transportation
ticket	railroad	warehouse
forfeiture	rate	waybill
form letter	rebate	writ
freight agent	rechecking	yardage
freight bill		yard office.

BOOKS AND MAGAZINES

Listed below are some of the books and magazines dealing with railroad topics. Those which are starred are especially interesting to young readers.

BOOKS

- *Adams, Charles F. *Railroads: Their Origin and Problems*. (1878) G. P. Putnam's Sons.
- Brown, William H. *The History of the First Locomotive in America*. (1871) D. Appleton and Company.
- *Carter, Charles F. *When Railroads were New*. (1909) H. Holt and Company.
- *Dunn, Samuel O. *The American Transportation Question*. (1912) D. Appleton and Company.
- *Hungerford, Edward. *The Modern Railroad*. (1911) A. C. McClurg and Company.
- *Husband, Joseph. *The Story of the Pullman Car*. (1917) A. C. McClurg and Company.
- Johnson, Emory R. *American Railway Transportation*. (1919 edition.) D. Appleton and Company.
- Johnson, E. R., and Van Metre, T. W. *Principles of Railroad Transportation*. (1916) D. Appleton and Company.
- McPherson, Logan G. *The Working of the Railroads*. (1907) H. Holt and Company.
- Newcomb, Harry T. *Railway Economics*. (1898) Railway World Publishing Company, Philadelphia.
- Sakolski, Aaron H. *American Railroad Economics*. (1913) Macmillan Company.

MAGAZINES

- Proceedings, The Journal of the Pacific Railway Club. Monthly, \$3.00 per year. Published by Pacific Railway Club, 64 Pine Street, San Francisco.
- Railway Clerk. Cincinnati, Ohio.
- The Railway Age. Weekly, \$10.00 per year. Published by the Simmons-Boardman Publishing Company, Woolworth Building, New York.
- The Railway Review. Weekly, \$4.00 per year. Published by the Railway Review, 537 South Dearborn Street, Chicago.

UNIVERSITY OF CALIFORNIA
DIVISION OF VOCATIONAL EDUCATION
RESEARCH AND SERVICE CENTER
FOR
PART-TIME SCHOOLS

SELECTED READING LIST
FOR
ADMINISTRATORS AND TEACHERS
IN PART-TIME SCHOOLS

BY EMILY G. PALMER
"

ISSUED BY
THE UNIVERSITY OF CALIFORNIA
IN CO-OPERATION WITH
THE STATE BOARD OF EDUCATION

BERKELEY, CALIFORNIA
SEPTEMBER, 1921

TMP96-021764

SELECTED READING LIST

FOR

ADMINISTRATORS AND TEACHERS IN PART-TIME SCHOOLS

The following lists of references consist of State and Federal publications, and recent books and articles on various phases of Part-time Education, exclusive of the references included in "A First Reading List for Administrators and Teachers in Part-time Schools," published by this Center in August, 1920. The accompanying list is not intended as a complete bibliography, but a minimum reading list of the best publications in this field.

A list of sources of reference material is followed by references classified under the following headings: Part-time and Continuation Schools; Corporation and Other Private Part-time Schools; Safety, Health, and Hygiene for Workers; Good Citizenship for Young Workers; Employment, Guidance, and Placement of Youths; Occupational Studies; and Other Suggestive Teaching Material.

SOURCES OF REFERENCE MATERIAL

CALIFORNIA STATE BOARD OF EDUCATION, Sacramento, California.

Vocational Education: Compulsory Part-time Education. Bulletin no. 23, P-T. E. Revised, June, 1921.

Documents Relating to Vocational Education. Bulletin no. 23-A. Fiscal year 1921-22.

FEDERAL BOARD FOR VOCATIONAL EDUCATION, Washington, D. C.

The Vocational Summary. (Published monthly) 50 cents the year.

Bulletins 1-69, the greater number sent free of charge. The last bulletin, no. 69, entitled "An Analysis of the Railway Boilermaker's Trade," gives a complete list of titles of bulletins available at present.

U. S. BUREAU OF EDUCATION, Washington, D. C.

Monthly Record of Current Educational Publications. Sent free.

Gives a record of recent publications of the Bureau of Education and also a classified list of references to educational books and periodicals.

U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS.

The Monthly Labor Review. \$1.50 the year, 15 cents the copy. Also bulletins in regard to employment, health of workers, etc. Sent free.

U. S. DEPARTMENT OF LABOR, CHILDREN'S BUREAU AND WOMEN'S BUREAU.

Publications pertaining to child welfare, health standards, etc.

UNIVERSITY OF CALIFORNIA, DIVISION OF VOCATIONAL EDUCATION, RESEARCH AND SERVICE CENTER FOR PART-TIME SCHOOLS, Berkeley, California.

Bulletins and Leaflets of the Part-time Education Series.

In the following educational magazines articles will be found from time to time:

The Industrial Arts Magazine. The Bruce Publishing Company, Milwaukee, Wis. \$2.50 per year.

Manual Training Magazine. Manual Arts Press, Peoria, Ill. \$1.50 per year.

School and Society. Science Press, Lancaster, Pa. \$5.00 per year, weekly.

School Life. Department of the Interior, Bureau of Education, Washington, D. C. Published twice a month. Sent free.

The Survey. A weekly magazine published by Survey Associates, Inc., 112 East 19th Street, New York. 15c a copy, \$5.00 per year. Has a department of "School and Community," conducted by Joseph K. Hart.

PART-TIME AND CONTINUATION SCHOOLS

ALLTUCKER, MARGARET M. *Coördination in Part-time Education.* University of California. Division of Vocational Education. Bulletin no. 3. March, 1921. Outlines the factors of coördination and the agencies by which it may be accomplished.

BAWDEN, WILLIAM T. *The Coöperative School.* U. S. Bureau of Education. Industrial Education Circular no. 2. Feb., 1919.

Gives examples of coöperative education in public and private schools, gives the advantages of the system, and adds a bibliography.

BAZELEY, E. T. *Two Experiments in Voluntary Continuation Schools.* Journal of Experimental Pedagogy, 6:20-26. March 5, 1921.

Describes the work with sixty continuation school girls in England, the nature of the problem, case studies, and the methods which achieved the desired goal.

BEST, ROBERT HALL, and OGDEN, C. K. *The Problem of the Continuation School and its Successful Solution in Germany: A Consecutive Policy.* London, P. S. King & Son, Orchard House, Westminster. 1914.

Describes and illustrates the types of occupational training given in the Munich and other continuation schools.

CALKINS, MARION CLINCH. *The Part-time School.* The Survey, 46:276. May 28, 1921.

Advocates the coöperative alternating plan of part-time education.

CLARK, RUTH SWAN. *The Continuation School.* The Survey, 45:541-2. Jan. 8, 1921.

Shows the field of service of the continuation school in New York City—to individuals of the group, to the industrial world, and to the parents.

Compulsory Part-time School Attendance Laws. Federal Board for Vocational Education. Bulletin no. 55. Trade and Industrial Series no. 14. Aug., 1920.

Gives a survey and an analysis of the compulsory part-time school attendance laws enacted in the various states up to August, 1920.

Consular Report on Continuation Schools in Prussia. Government Printing Office, Washington, D. C. U. S. Bureau of Education, Bulletin, 1913, no. 9. Whole no. 516.

Has brief articles on continuation schools and their scope in Magdeburg, Erfurt, Brunswick, Barmen and Breslau.

Continuation Classes in England. School and Society, 12:223. Sept. 18, 1920.

Indicates the large number of pupils receiving instruction in continuation classes provided by English firms employing large numbers of youths between the ages of fourteen and eighteen years.

COOLEY, R. L. *Vocational Education in the Continuation Schools*. National Society for Vocational Education. Bulletin no. 32. June, 1920, p. 136-150. Shows the relation of continuation schools to the whole field of education, means of promoting the scheme, the classification of groups found in the continuation school, and some of the problems to be worked out.

Courses of Training for Store Service in Continuation and Secondary Schools. In *Training for Store Service*. Women's Educational and Industrial Union. Boston, 1920. p. 87-106.

Discusses the positions for workers in department stores and suggests courses for various groups.

Day Continuation School Opportunities in London. Manual Training Magazine, 22:303. March, 1921.

Notes the opening of continuation schools in London and outlines briefly the curriculum.

DEAN, ARTHUR D. *A Point of View*. Manual Training Magazine, 22:75-76. Sept., 1920.

The outlook and problems of the new continuation schools in New York State.

DEAN, ARTHUR D. *A Point of View*. Manual Training Magazine, 22:4 and 6. Oct. and Dec., 1920.

The varied types of education which may be presented to suit different needs.

Evening and Part-time Schools in the Textile Industry of the Southern States. Federal Board for Vocational Education. Bulletin no. 30. Trade and Industrial Series no. 5. April, 1919.

Gives outlines of short-unit courses for textile workers and analyses of many textile occupations.

Industrial Opportunities and Training for Women and Girls. U. S. Department of Labor. Women's Bureau. Bulletin no. 13. 1920.

Gives a summary of the type of industrial training given women and girls in this country in 1919-20.

KERSEY, VIERLING. *The Coördinator in the Los Angeles Part-time Instruction Department*. Los Angeles School Journal, IV:3-4. June 13, 1921.

Gives a terse analysis of the duties of the coördinator in the part-time school.

LEAVITT, FRANK M. *Launching Part-time Coöperative Education on a Large Scale*. Manual Training Magazine, 20:267-71. April, 1919.

A resume of the Pittsburgh plan of coöperative part-time education which is entered into jointly by several of the large department stores, the Carnegie Institute of Technology, and the public schools.

London Continuation School Curriculum. Manual Training Magazine, 22:45. August, 1920.

A short article on the hours, curriculum, and aim of the continuation school in London.

London's Great Experiment. New Statesman, 16:411-12. Jan. 8, 1921.

Describes the conditions under which the London Day Continuation Schools opened.

MACDONALD, D. J. *Outstanding Administrative Problems in Part-time Education*. Industrial Arts Magazine, 10:323-28. Sept., 1921.

Discusses five problems which are uppermost in part-time education—namely, finding suitable subject matter, securing competent teachers, providing adequate and suitable class rooms, getting pupil coöperation, and arranging a satisfactory program.

MYERS, GEORGE E. *Problems in Vocational Education in Germany with Special Application to Conditions in the United States*. U. S. Bureau of Education. Bulletin no. 33. Whole no. 660. 1915.

Discusses four problems in continuation education in Germany, namely, continuation schools for boys in unskilled occupations, for girls and women, for training industrial continuation school teachers, and the system of dual control.

New York City Continuation Schools. School Life, 5:7. Nov. 1, 1920.

Gives the aim of the schools as vocational guidance and placement, allaying social unrest, and developing a feeling of civic responsibility.

NUSBAUM, LOUIS. *The Organization of Continuation Schools in Philadelphia*. Educational Foundations, 32:111-13. Oct., 1920.

Discusses the problems of the continuation school in Philadelphia as to school location and the arrangements as to attendance, teachers, and class work.

The Obligatory Continuation School. Schools of Scandinavia, Finland, and Holland. U. S. Bureau of Education. Bulletin no. 29, 1919, p. 36-39.

Gives the purpose of the compulsory continuation schools which go into full effect in Sweden in 1924. The hours of instruction, state aid, and teacher training are also discussed.

PALMER, EMILY G. *The Application Blank for Enrollment in Part-time Schools: a Statistical Study*. University of California. Division of Vocational Education. Part-time News Notes, no. 4. April, 1921.

Classifies the occupations in which the permit-workers of the part-time schools of the East Bay Cities are engaged, and suggests an application blank for enrollment.

PARK, C. W. *The Coöperative System of Education*. U. S. Bureau of Education. Bulletin no. 37. 1916.

Gives an account of the plan as developed in the college of engineering of the University of Cincinnati.

The Part-time School and the State's Educational Program. The Vocational Summary, 4:9-10. May, 1921.

Gives a short statement of the provisions each state should make in its educational program to bridge the gap between schooling and earning.

Part-time Schools and Classes. In *Trade and Industrial Education for Girls and Women*. Federal Board for Vocational Education. Bulletin no. 58. Oct., 1920.

Outlines the field, suggests coöperating agencies, and courses of study.

Progress in Part-time Education in Los Angeles. University of California. Division of Vocational Education. Part-time News Notes, no. 2. Dec., 1920.

Presents the blanks and forms used in the Department of Part-time Instruction in Los Angeles.

SCHNEIDER, HERMAN. *Education for Industrial Workers*. World Book Company, 1915.

Chapters on the coöperative course, and the continuation school; how to inaugurate them, with some advantages of the two plans.

School and the Flannel Shirt. The Survey, 46:56. April 9, 1921.

Gives an account of what is being done in the part-time rural schools of Wisconsin.

SEWREY, U. ROY. *How Rockford, Illinois, is Meeting the Industrial Education Problem*. Manual Training Magazine, 20:272-75. April, 1919.

Two part-time groups are provided for in the Rockford plan, permit boys between the ages of 14 and 16 who work in pairs, attending school half time, and apprentice boys 16 to 21 years of age who attend school only one-half day a week. Beside full-time trade classes, there is a prevocational grade school group which includes all the boys from all the eighth grades of the city, who are given a varied shop exposure.

SIEGEL, MORRIS E. *The Aims and Problems of the Continuation School*. Educational Foundations, 32:114-15. Oct., 1920.

An address given by the Director of Evening and Continuation Schools of New York City.

SNEDDEN, DAVID. *The Theory of the Vestibule and Upgrading Vocational School*. School and Society, 11:280-84. March 6, 1920.

Discusses the problems of the social justification for public support of factory training schools; representation in the control of such schools; and the means of fostering instruction in related industrial information.

TENNEY, W. A. *The Work of the Director of Part-time Education*. University of California. Division of Vocational Education. Part-time News Notes, no. 3. Jan., 1921.

Gives a report of the first problems of the director of Part-time Education in a city of two hundred thousand.

Three Months of Coördination in the Oakland Schools. University of California. Division of Vocational Education. Part-time News Notes, no. 1. Nov., 1920.

Gives a report of the first problems of a coördinator in preparing for and opening a part-time school.

Vocational Education: Compulsory Part-time Education. California State Board of Education. Bulletin no. 23, P-T. E. Revised, June, 1921.

Gives an analysis of the Part-time Education Act, discusses the type of instruction, content of courses, characteristics of part-time pupils, administrative problems, etc.

Vocational Education Plus Inspiration Holds Junior Employees. Dry Goods Economist, no. 3981, Oct. 23, 1920, p. 15-16.

Indicates the large number of junior workers found in the field of retail merchandising and the value of the continuation school to the merchant when training is adapted to the individual.

WRAY, W. J., and FERGUSON, R. W. *A Day Continuation School at Work*. Longmans, Green & Co. 1920.

Consists of twelve papers on continuation schools for boys, continuation schools for girls, the teaching of special subjects, coördination, and the employer's part in the scheme.

CORPORATION AND OTHER PRIVATE PART-TIME SCHOOLS

FOGHT, H. W. *A Half-time Mill School*. U. S. Bureau of Education. Bulletin no. 6. 1919.

Outlines the plan of the South Carolina Textile Industrial Institute to find, train, and prepare economic and social leaders for the cotton-mill population.

FULD, LEONHARD F. *Service Instruction of American Corporations*. U. S. Bureau of Education. Bulletin no. 34. 1916.

Reviews the service instruction given by department stores, telephone companies, General Electric Company, Lakeside Press, etc.

Industrial Training in Representative Industries. U. S. Department of Labor. U. S. Training Service. Training Bulletin no. 13. 1919.

One of a series of twenty-six bulletins giving the kind of training which has been given or should be given in certain industries.

KNOX, J. *Port Sunlight Works Continuation School*. Lever Brothers, Port Sunlight, England. 1920.

Gives an account of the voluntary organization of the continuation school in Lever Brothers plant and the courses given in trade work and in the "hobby school."

MORRIS, JOHN VAN LIEW. *Employee Training*. McGraw Hill Book Co. 1921.
Includes the training programs in the electrical manufacturing industry, in rubber and automobile industries, and in other manufacturing concerns; modern apprenticeship programs; and special problems of training.

MYERS, GEORGE E. *How Industry is Meeting the Problem of Industrial Education*. Manual Training Magazine, 22:27-31. Aug., 1920.

Notes the recent change in the attitude of industry toward industrial education and the education of the employee.

SAFETY, HEALTH, AND HYGIENE FOR WORKERS

ALLEN, W. H. *Civics and Health*. Ginn. 1909.

Bases efficient citizenship on health and suggests curative and preventive measures.

BUSSEY, GEORGE D. *A Manual of Personal Hygiene*. Ginn. 1917.

Discusses ventilation, eating, care of the teeth, of the hair, of the nose and throat; the importance of bacteria, etc.

Causes of Death, by Occupation. U. S. Department of Labor. Bureau of Labor Statistics. Bulletin whole no. 207. Industrial Accidents and Hygiene Series no. 11. 1917.

Gives the results of an analysis of the occupational mortality experience of the Metropolitan Life Insurance Company.

Conserving Children in the Industries of Massachusetts. Commonwealth of Massachusetts. Department of Labor and Industries. Division of Industrial Safety. Industrial Bulletin no. 15. 1920.

Emphasizes the "value of coöperation with the continuation school" to educate the child relative to the dangers and hazards of modern industry.

Health Hazards in the Millinery Industry in New York City. Monthly Labor Review, 11:107-109. Aug., 1920.

Indicates the health risks in making artificial flowers, velvet, feathers, etc.

Hygiene of the Painter's Trade. U. S. Department of Labor. Bureau of Labor Statistics. Bulletin whole no. 120. Industrial Accidents and Hygiene Series no. 2. May, 1913.

Gives an analysis of the composition of various kinds of paint and the physiological effect of the constituents.

Hygiene of the Printing Trades. U. S. Department of Labor. Bureau of Labor Statistics. Bulletin no. 209. Industrial Accident and Hygiene Series no. 12. April, 1917.

Presents some of the occupational hazards in the printing trades and methods of lessening the danger of disease.

Metropolitan Life Insurance Company. Pamphlets on *The Health of the Worker*; *First Aid in the Home*; *Living and Sleeping in the Open Air*; etc. New York City.

Gives useful information in regard to means of gaining and keeping good health.

Minimum Standards of Children Entering Employment. In *Standards of Child Welfare*. U. S. Department of Labor. Children's Bureau. Conference Series no. 1. Bureau Publication no. 60, p. 433-35.

Gives a summary of standards in regard to age, education, physical condition, bonus, wage, etc., for juvenile workers.

Safe Practices Pamphlets. National Safety Council, 168 North Michigan Avenue, Chicago.

A series of pamphlets sent to active members of the National Safety Council. They include about fifty topics, among which are belts and belt guards, scaffolds, goggles, safe clothing, etc.

TOLMAN, WILLIAM H., and GUTHRIE, ADELAIDE W. *Hygiene for the Worker.* American Book Co. 1912.

Has chapters on: preparing for the day's work, suitable clothing, food and drink, fatigue, occupational dangers, etc.

Training Courses in Safety and Hygiene in the Building Trades. U. S. Federal Board for Vocational Education. Bulletin no. 31. Trade and Industrial Series no. 6. May, 1919.

Discusses proper safety precautions for the building trades worker, for his fellow workers, and for the public. Part II gives suggestions to teachers.

WOODBURY, HELEN SUMNER. *Working Children of Boston.* Monthly Labor Review, 12:45-59. Jan., 1921.

"The purpose of this study was to ascertain the amount, character, conditions, and effects of employment of children under 16 years of age in an American city of diversified industries and a considerable volume of trade."

GOOD CITIZENSHIP FOR YOUNG WORKERS

AMES, EDGAR W., and ELDRED, ARVIE. *Community Civics.* Macmillan. 1921.

Beginning with the home and the relation of the members of the home, the book treats of community relations and problems, and finally of the state and national government.

CABOT, Mrs. ELLA LYMAN, and Others. *Course in Citizenship and Patriotism.* Houghton. 1918.

Gives lesson material for each month of the year for the first eight grades. Subjects for talks, lists of poems, and stories to read make it a source book of value.

DUNN, A. W. *Community and the Citizen.* Heath. 1907.

A textbook for use in developing a knowledge of the interrelation of citizen and community, stated in language suited to youths of the part-time school age. Each chapter suggests problems for investigation and gives references.

FIELD, JESSIE, and NEARING, SCOTT. *Community Civics.* Macmillan. 1916.

A discussion of the civic problems in rural communities.

Fifteen Lessons in Thrift. Savings Division, U. S. Treasury Department. August, 1919. (Obtainable in California from the Director of the District, 315 Battery Street, San Francisco, California.)

GILES, F. M., and I. K. *Vocational Civics.* Macmillan. 1919.

Citizenship through service in some occupation is the theme. Contains good reading lists on a large number of occupations.

GRISCOM, ELLWOOD. *Americanization.* Macmillan. 1920.

Contains selections from American statesmen, speakers, and writers on many phases of our national life.

HILL, MABEL. *Lessons for Junior Citizens.* Ginn. 1906.

Through stories, gives the functions of the police department, the board of health, the fire department and other city and state departments. Used as a reader for foreigners with a limited knowledge of English.

HUGHES, R. O. *Community Civics*. Allyn and Bacon. 1917.

Has four parts covering the following topics: community life, elements of community welfare, the mechanism of our government, and problems of national scope. The last topic includes financial problems, economic and industrial problems, and social problems. Good illustrations.

HUGHES, R. O. *Economic Civics*. Allyn and Bacon. 1921.

Has excellent chapters on: the things we need, the things we want, producing things, modern business, making living conditions better, etc. Good illustrations.

LEAVITT, F. M., and BROWN, EDITH. *Elementary Social Science*. Macmillan. 1917.

The book presents an interesting treatment of economic problems in form to interest young citizens.

Lessons in Community and National Life. U. S. Bureau of Education. Community Leaflets nos. 1-24. 1917-18.

Four lessons in each leaflet with a list of reference material on each topic, make up this series of lessons on topics which include the water supply of a town or city, preventing waste, the rise of machine industry, social control, inventions, etc.

Teaching Children How to Save. Savings Division, War Loan Organization. U. S. Treasury Department. 1920.

TURKINGTON, GRACE A. *My Country: a Textbook in Civics and Patriotism for Young Americans*. Ginn. 1918.

The book "aims to create a background which will help the teacher develop a spirit of true patriotism" and treats of the technical relation of the citizen to his country.

EMPLOYMENT, GUIDANCE, AND PLACEMENT OF YOUTHS

Advising Children in their Choice of Occupation and Supervising the Working Child. U. S. Children's Bureau. Children's Year Leaflet no. 10. Bureau Publication no. 53. April, 1919.

Discusses what might be done in organizing placement bureaus and follow-up supervision for employed youths.

Bibliography on Vocational Guidance: A Selected List of Vocational Guidance References for Teachers. Federal Board for Vocational Education. Bulletin no. 66. June, 1921.

Children Leaving School for Work. School and Society, 12:49-50. July 10, 1920. Shows the need of a placement bureau in the schools.

DAVIDSON, RONALD C. *Juvenile Placement in Great Britain*. Standards of Child Welfare. U. S. Department of Labor. Children's Bureau. Conference Series no. 1. Bureau Publication no. 60. 1919, p. 132-141.

The work of the Juvenile Labor Exchange in England in placing and supervising juveniles in employment and carrying on propaganda to promote the work.

Digest of Laws Appertaining to the Employment of Minors. California Bureau of Labor Statistics. This pamphlet can be obtained by sending to the State Bureau of Labor Statistics, 948 Market Street, San Francisco.

The Employment-certificate System: A Safeguard for the Working Child. U. S. Department of Labor. Children's Bureau. Children's Year Leaflet no. 12. Bureau Publication no. 56. 1919.

Emphasizes the importance of a careful physical examination of each child before issuing the working permit and follow-up supervision during employment.

EVANS, OWEN D. *Vocational Guidance in the Continuation School.* Manual Training Magazine, 23:209-14. Jan., 1921.

Advocates guiding youths in acquiring the most information from each job and a plan of follow-up to see that the youthful worker has a plan and is alive to the opportunities ahead of him regardless of the job in which he starts.

GALLAGHER, RACHEL. *Vocational Guidance and the Juvenile Placement Work of a Public Labor Exchange.* Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices. U. S. Department of Labor. Bureau of Labor Statistics. Bulletin whole no. 220. Employment and Unemployment Series no. 6. 1917, p. 56-58.

A discussion by the directors of the Girls' and Women's Bureau of Cleveland, Ohio, showing the conditions which must be met in placing young workers.

GOLDMARK, PAULINE. *The Child at Work.* The Survey, 45:604-5. Jan. 22, 1921.

A review of a study of the industrial history of Connecticut children based on information contained in the employment certificates.

JARVIS, C. D. *Work of School Children During Out-of-School Hours.* U. S. Bureau of Education. Bulletin no. 20. 1917.

Summary of an investigation covering the activities of over 14,000 children, giving the kind of employment, reasons for leaving school, and recommendations for continuation courses.

Labor Legislation of 1919. U. S. Bureau of Labor Statistics. Bulletin no. 277. Jan., 1921.

Gives the text of the laws of various states relating to labor enacted since Jan. 1, 1919. A very good index makes reference to employment of children, vocational education acts, etc.

Measures Concerning Juvenile Workers. The Survey, 45:19, section II. Feb. 5, 1921.

Shows the service the schools may render the youth in giving him training while out of employment and the payment of a small wage until employment is secured.

MINER, JAMES B. *Standardizing Tests for Vocational Guidance.* School and Society, 13:629. June 4, 1921.

States the need for standardization of test data on different occupations, and outlines two lines of research work.

Next Steps in Child Labor. The Survey, 45:535. Jan. 8, 1921.

Points out society has not interested itself sufficiently in discovering what work children ought to have and seeing that it is provided as a part of their education.

The Principles of Vocational Guidance. The American Child, 3:71. May, 1921.

The statement adopted by the National Vocational Guidance Association in convention at Atlantic City, Feb., 1921.

REED, ANNA Y. *Junior Wage Earners.* Macmillan. 1920.

A discussion of the functions and methods of guidance, placement, and follow-up in the employment of young workers.

State Compulsory School Attendance: Standards Affecting the Employment of Minors. U. S. Department of Labor. Children's Bureau. Chart Series no. 2. January 1, 1921.

Analyzes all the states' laws in regard to compulsory attendance for day schools, continuation schools, and evening schools.

The States and Child Labor: Lists of States with Certain Restrictions as to Ages and Hours. U. S. Department of Labor. Children's Bureau. Children's Year Leaflet no. 13. Bureau Publication no. 58. 1919.

Gives for certain states, minimum working age, maximum working hours, compulsory school attendance, etc., up to the year 1919.

WOODBURY, ROBERT W. *Industrial Instability of Child Workers.* U. S. Children's Bureau. Industrial Series no. 5. Bureau Publication no. 74. 1920.

A study based on the employment certificate records in Connecticut. Shows how soon after reaching legal working age children seek work, the unsatisfactory adjustments resulting in unsteady employment, and the problems resulting from unemployment.

OCCUPATIONAL STUDIES .

ALLEN, FREDERICK J. *A Guide to the Study of Occupations: A Selected Critical Bibliography of the Common Occupations with Specific References for their Study.* Harvard University Press, Cambridge. 1921.

Gives a list of references in the nine occupational fields classified in accordance with the United States Census.

An Analysis of Department Store Occupations for Juniors. University of California. Division of Vocational Education. Bulletin no. 2. Dec., 1920.

Analyzes the work of the wrapper, cashier, stock clerk, marker, and messenger.

An Analysis of the Railway Boilermaker's Trade. Federal Board for Vocational Education. Bulletin no. 69. Trade and Industrial Series no. 21. June, 1921.

Analyzes the trade in four large blocks and includes the necessary supplementary topics of instruction.

Analysis of Textile Occupations as Basis of Recommending Courses of Instruction for Evening and Part-time Classes. In *Evening and Part-time Schools in the Textile Industry of the Southern States.* Federal Board for Vocational Education. Bulletin no. 30. Trade and Industrial Series no. 5. April, 1919.

Analyzes individual jobs under the headings of duties, promotion, and instruction, and gives a running analysis of manufacturing processes.

BERRY, R. E. *An analysis of Clerical Positions for Juniors in Railway Transportation.* University of California. Division of Vocational Education. Bulletin no. 5. July, 1921.

Analyzes twenty typical clerical positions in the division offices of a large railroad.

CAMPION, H. A. *Junior Employees in the Retail Drug Business.* University of California. Division of Vocational Education. Part-time News Notes no. 5. May, 1921.

Analyzes the work done by junior employees in a large number of drug stores, and suggests instruction for advancement in the drug business.

Descriptions of Occupations. U. S. Department of Labor. Prepared for the U. S. Employment Service by the U. S. Bureau of Labor Statistics. 1918.

A series of publications designed to give a brief description of occupations and the qualifications necessary for performance of the tasks. Logging camps and mills, textiles and clothing, street railways, etc., are among the fields described.

GOWIN, E. B., and WHEATLEY, W. A. *Occupations.* Ginn. 1916.

Discusses many occupations in some detail—written for use in a full-time high school.

JESSUP, EVA, and BLANCHARD, CLYDE. *An Analysis of the Work of Juniors in Banks.* University of California. Division of Vocational Education. Bulletin no. 4. May, 1921.

Contains an analysis of nine positions which are commonly filled by junior employees in banks and suggests training units.

LEONARD, ROBERT J. *A Report of the Richmond, Indiana, Survey for Vocational Education.* The Indiana State Board of Education. Educational Bulletin, Vocational Series no. 15. Indiana Survey Series no. 3. Dec., 1916.

Describes a wide range of occupational fields and analyzes individual jobs under the following headings: what the worker does, special knowledge required, special skill required, how special knowledge and skill are obtained, and hazards and inherent character of the work.

Opportunity Monographs. Federal Board for Vocational Education. Vocational Rehabilitation Series nos. 1-44. 1918-20.

Give descriptions of a large number of occupations, discussed from the point of view of placing and training the disabled soldier.

A Survey and Analysis of the Pottery Industry. Federal Board for Vocational Education. Bulletin no. 67. Trade and Industrial Series no. 20. June, 1921.

Contains an analysis of thirty-two payroll jobs in the pottery industry and gives a survey of working conditions, training provided, etc.

Survey of Junior Commercial Occupations. Federal Board for Vocational Education. Bulletin no. 54. Commercial Education Series no. 4. June, 1920.

Gives analyses of junior commercial occupations open to boys and girls under eighteen years of age.

Theory and Practice for the Machinist's Trade. Federal Board for Vocational Education. Bulletin no. 52. Trade and Industrial Series no. 13. Dec., 1919.

Gives an analysis of the machinist's trade with outlines of instruction in related subjects.

Vocational Education Survey of Minneapolis, Minn. U. S. Department of Labor. Bureau of Labor Statistics. Bulletin whole no. 199. Vocational Education Series no. 1. 1916.

Gives an analysis of the industries of the city, the kind of instruction needed for workers in these industries and the best way of imparting the instruction.

OTHER SUGGESTIVE TEACHING MATERIAL

BARCLAY, LORNE W. *Educational Work of the Boy Scouts*. U. S. Bureau of Education. Bulletin no. 24. 1919.

Shows that "scouting is literally education" and how it can be used as a supplementary activity to the school program.

BISHOP, AVARD L., and KELLER, ALBERT G. *Industry and Trade: Historical and Descriptive Account of their Development in the United States*. Ginn. 1918.

Gives, for young readers, an interesting treatment of the development of industry and commerce, but has only a brief treatment of the human side of the question, discussing very briefly the relation of capital and labor.

BURNS, ELMER E. *The Story of Great Inventions*. Harper. 1910.

Beginning with stories of the first great inventions, there follow stories of the steam-engine, the dynamo, the battery, the telegraph, the telephone, gas engines, the aeroplane, the submarine, wireless telegraph and telephone, and the X-ray.

COE, FANNY E. *Heroes of Everyday Life*. Ginn. 1911.

A compilation of stories of the diver, the telegraph operator, the civil engineer, the day laborer, the life-saver, the fireman, the engineer at sea, and the miner, intended for readers of part-time school age.

DAVIS, ROY, and GETCHELL, FREDERICK G. *Stories of the Day's Work*. Ginn. 1921.

Contains selections from the works of well-known authors which "deal with modern conditions in a way that is always within the comprehension of boys and girls."

LOU, JULIETTE. *Girl Scouts as an Educational Force*. U. S. Bureau of Education. Bulletin no. 33. 1919.

Gives a review of the scope of the Girl Scout work and their field of service in a number of cities.

VAN BUSKIRK, E. F., and SMITH, E. L. *The Science of Every Day Life*. Houghton Mifflin & Co. 1919.

A text giving projects on air, water, food, forces of nature, house building, lighting and heating, clothing and its care, household machinery, communication, transportation, etc.

LIST OF PUBLICATIONS OF THE DIVISION OF VOCATIONAL EDUCATION UNIVERSITY OF CALIFORNIA

PART-TIME EDUCATION SERIES

- Bulletin No. 1. Syllabus of an Introductory Course on Part-time Education. January, 1920. (Out of print.)
- Lesson Plans and Reports for use in connection with the Introductory Course on Part-time Education. (Out of print.)
- Leaflet No. 1. A First Reading List for Administrators and Teachers in Part-time Schools. August, 1920.
- Leaflet No. 2. The Work of Coördination in Part-time Education. November, 1920. (Out of print.)
- Bulletin No. 2. An Analysis of Department Store Occupations for Juniors. December, 1920.
- Bulletin No. 3. Coördination in Part-time Education. March, 1921. (A revision of Leaflet No. 2.)
- Bulletin No. 4. An Analysis of the Work of Juniors in Banks. May, 1921.
- Bulletin No. 5. An Analysis of Clerical Positions for Juniors in Railway Transportation. August, 1921.
- Leaflet No. 3. Selected Reading List for Administrators and Teachers in Part-time Schools. September, 1921.
- Part-time News Notes No. 1. Three Months of Coördination in the Oakland Schools. November, 1920.
- Part-time News Notes No. 2. Progress in Part-time Education in Los Angeles. December, 1920.
- Part-time News Notes No. 3. The Work of the Director of Part-time Education. January, 1921.
- Part-time News Notes No. 4. The Application Blank for Enrollment in Part-time Schools: A Statistical Study. April, 1921.
- Part-time News Notes No. 5. Junior Employees in the Retail Drug Business.
-

AGRICULTURAL EDUCATION SERIES

- Bibliography of Agricultural Reference Books. March, 1920.
- Smith-Hughes Courses in English for Classes in Agriculture.
- Rural Social Survey Outline. August, 1920.
- Farm Mathematics Outline. August, 1920.
- Second Year—Farm Mathematics Outline. August, 1920.
- Bush Fruits Project Study Outline. March, 1920.
- Grape Project Study Outline. May, 1920.
- Poultry Project Study Outline. June, 1920.
- Swine Project Study Outline. June, 1920.
- Suggestions for Farm Mechanics Work in Vocational Agriculture. November, 1920.
- Suggestive List of Illustrative Material for Teachers of Vocational Agriculture. December, 1920.
- Dairy Project Study Outline with Suggestive Exercises. January, 1921.
- Suggestive Exercises in Fertilizer. March, 1921.
- Apricot Project Study Outline with Suggestive Exercises. March, 1921.
- Suggestive Exercises in Poultry Husbandry. April, 1921.
- Suggestive Exercises in Soils and Plant Life. April, 1921.
- Suggestive Exercises in Irrigation. April, 1921.
- Suggestive Exercises in Vegetable Growing. April, 1921.
- Suggestive Exercises in Swine Production. May, 1921.
- Sheep Project Study Outline. June, 1921.
- Alfalfa Culture Project Outline. July, 1921.
- Baby Beef Project Outline and Exercises. August, 1921.

UNIVERSITY OF CALIFORNIA
DIVISION OF VOCATIONAL EDUCATION
RESEARCH AND SERVICE CENTER
FOR
PART-TIME SCHOOLS

PART-TIME AND CONTINUATION
SCHOOLS ABROAD

REPRINTS

Emily G. Palmer, 2007

ISSUED BY
THE UNIVERSITY OF CALIFORNIA
IN CO-OPERATION WITH
THE STATE BOARD OF EDUCATION

BERKELEY, CALIFORNIA
NOVEMBER, 1921

PREFACE

The three selections reprinted in this bulletin are articles which cannot readily be obtained in this country. They present the solution of the problem of part-time or continuation school education by three different agencies—the first by a factory, the second by a training college, and the third by the public schools. The last page contains a list of a number of other publications in regard to part-time and continuation schools abroad, which show the extent of the movement in this field of education.

Thanks is due to the authors and publishers named in the table of contents for permission to reprint the selections included in this bulletin.

EMILY G. PALMER,
Special Agent for Training Part-time Teachers.

CONTENTS

	PAGE
I. Port Sunlight Works Continuation School. An address given to the Joint Industrial Council of the Soap and Candle Trades at Birmingham, Tuesday, March 16, 1920. By Prof. J. Knox, M. A., Education and Welfare Department, Lever Bros., Port Sunlight, Cheshire. Printed by Lever Bros. Limited, at their Works, Port Sunlight.....	5
II. Two Experiments in Voluntary Continuation Schools. By Elsie T. Bazeley, Whitelands College, Chelsea. Originally published in the Journal of Experimental Pedagogy and Training College Record, March and June, 1921.....	21
III. German Continuation Schools. From the (London) Times Educational Supplement, Saturday, October 1, 1921.....	37
IV. The Compulsory Day Trade Continuation Schools of Munich. By R. H. Best and C. K. Ogden. Part of an article in The Problem of the Continuation School and its Successful Solution in Germany. A Consecutive Policy. Published by P. S. King and Son, London.....	39
V. Short List of Publications on Part-time and Continuation Schools Abroad	48

I. PORT SUNLIGHT WORKS CONTINUATION SCHOOL

By PROF. J. KNOX, M.A.

(An address given to the Joint Industrial Council of the Soap and Candle Trades at Birmingham, March 16, 1920.)

While we were still in the midst of the Great War in 1917, and while we were still under the spell of Turner's "Eclipse or Empire" and of the conviction that something further must be done to improve and extend the national scheme of education, Mr. Fisher's Bill passed through both Houses and became an Act of Parliament. We need not concern ourselves with the many details of the Act, but will confine our attention to its far-reaching and somewhat startling provisions for the continued education of young persons from 14 to 16 years of age. Nor need we concern ourselves with the education of those young people who may be attending full time Secondary Schools till they are 16, but only with the provisions which affect young workers, those who have taken up some form of employment in some branch of industry or commerce.

The Act provides that such young employees, 14 to 16 years, must attend a Continuation School for at least 280 hours a year—though 320 are desired and will ultimately become compulsory—in the employer's time; and after the present Act has been in force for 7 years this provision is to be extended to include all junior employees until they are 18 years of age. This Act is not yet in operation, but the Minister for Education said in the House of Commons, in reply to a question last August, that he hoped to make the provisions compulsory in the autumn of 1921; and in Southport, early in January, he said: "There is no intention on the part of the Government to abate one jot or tittle of that Act."

Now, however many and however serious may be the difficulties that employers will have to face in complying with Mr. Fisher's Scheme of Continued Education, everyone must acknowledge the urgent necessity of more and better education for youthful employees in factories, mines, shops and offices who will afterwards be citizens of a democratic state, than the meagre and truncated quantity which they receive at present. Anyone who has to do with the engaging of young people of 14 years of age must have been surprised and pained with their disconcerting inefficiency in both English and Arithmetic. They seem to have a good deal of loose and unrelated information about many things, but many of them do not seem to be able to transact accurately and reliably the elementary duties attaching to the work of a junior in industry

or commerce. Probably the mistake has been made of thinking that education is pretty well completed at 14; whereas the vital part only begins then and unless it is followed up and continued after that age the millions of pounds provided for Elementary Education are being, to a great extent, wasted.

During the summer of last year, the Education Committee of Messrs. Lever Brothers Limited decided to extend the facilities of the Staff Training College, which had been previously confined to the junior clerks in the General Offices and to apprentices in the skilled trades, to some of the unskilled workers (between 14 to 16 years of age) in the factory. About one thousand notices were distributed amongst the young employees, explaining the offer and inviting those who wished to avail themselves of the opportunity to make application through their various managers. About 40 per cent of the people eligible applied, and an examination was held on the lines of a psychological test of intelligence, so as to choose from amongst the applicants those who could be accommodated at the time. One interesting result of the experiment which I wish to point out was that, generally speaking, the further the child was from the date of leaving the school the more illiterate he had become in reading, writing, arithmetic and all the subjects which might be summed up as school knowledge. Many of them had quite forgotten their multiplication table, so that they were unable to check a simple grocer's or draper's bill; and if a paragraph in the newspaper were at all strange they had great difficulty in reading it intelligently and many seemed to be unable to write down in a few grammatical and consecutive sentences what it was all about. Now, to modify a well-known phrase, it is impossible to run an A1 business if the employees can only be classed, educationally, as C3. I think it may be taken for granted that continued education in some form is a national and industrial necessity, and that we must cheerfully put our industrial and commercial houses in order to meet all the provisions of the Fisher Act. And, in addition, I think it may safely be said that "if with all our vast apparatus of machinery and power, we cannot arrange society that each child has an opportunity in life, it would be better to break the machinery in pieces and return to the woods from which we came."

What, then, are the main provisions of the Act? Under that Act it will be necessary for all employers to liberate their junior employees from 14 to 16 years of age for at least 280 hours in the year, so that they may attend continuation schools which Local Education Authorities must either themselves provide or see that they are provided. It is suggested that these 280 hours may be divided into 7 hours per week

for 40 weeks, *i. e.*, one whole day or two half days for 40 weeks, or if the employment be seasonal, 8 whole weeks in the off or slack season. A little reflection on these provisions will show a good many problems for employers, and how necessary it is for them to look ahead so that they may be able not only to adopt the Act when it comes in force on the appointed date, but also to make the best arrangements possible so that both the employers and the students may receive the greatest benefits from the Act.

An employer may choose one of at least four ways to meet the provisions required:—

1. He may leave the whole affair in the hands of the Local Education Authority if and when compelled by law, and simply release the young persons affected for the required number of hours and think no more about it.
2. He may leave the purely educational subjects in the hands of the L. E. A., and by arrangements with them provide what is called the “Vocational” Section of Continued Education.
3. He may provide the School Buildings, the Gymnasium, Club Rooms, etc., and leave the Educational arrangements for curriculum, teaching staff, etc., in the hands of the L. E. A.
4. He may provide a School of his own for his young employees—what is usually called a “Works School.” Such a school may be entirely financed by the Company, or it may be recognized by the Educational Authority and receive the Government Grants in the ordinary way.

At Port Sunlight we have adopted the fourth alternative and I take it you wish me to tell you about our scheme and about the underlying principles which seem to us to justify our Staff Training College. The Education policy of the Company is in the hands of a Committee composed of Directors and Deputy Directors, of which Committee Mr. Gray is Chairman. The details of the teaching, subjects curriculum, etc., are largely in the hands of four College Boards, namely, the Office Board, Apprentice Board, the Factory Students’ Board, and the Adult Evening Classes Board. Half of the members of those Boards are Managers or Heads of Departments appointed by the Company, the other half are popularly elected by ballot by the General Office Staff and by the Factory Employees respectively. Between the Committee of Directors and the College Boards there is another committee which deals with the General Management of the College Classes and with the arrangements of the hours of study and the smooth working generally of the scheme as between the business and the Staff Training College. By means of these committees we obtain the interest

and support of not only the Directors of the Company but also of the Managers and General Staff of employees so that the Staff Training College is felt to be an integral part of the business.

Written examinations are held twice a year, and a report of the results in every subject is sent to the various Managers of the departments in which the students work, and also to their parents. The Managers are expected to see all the students in their departments and to speak with them on their examination results, and before they send their copies of the reports to the Secretary's department to be filed away for reference they are expected to write their own report on the back of the college one as to the work of the student in the office or the factory. Twice a year, therefore, the work of every student is carefully considered, and as these reports accumulate they become a kind of "proficiency chart," a definite indication as to what kind of employee the student actually is, so that advances and appointments can be made in the light of the facts of the case, and young employees feel that their future is almost entirely in their own hands and will be in accordance with the records they have made in the business and at the college. The college discovers talent which may never come to the surface along the lines of much of the employment transacted by juniors, and it becomes much easier to place young people in situations and departments where they are most likely to do their best work. As a further inducement to students to do well in their college classes the Company instituted a system of awards for distinctions in the term examinations, namely 6d. per week for each distinction gained, so that it becomes possible at the end of four years for students to be earning four or five shillings over and above their ordinary pay.

OFFICE STUDENTS

The Company was fortunate enough to have a convenient building quite close to the office which, as it had been originally built for a day school, was easily adapted to suit the college. When it was opened about three years ago, the classes were only for juniors in the General Offices and for apprentices to skilled trades from 14 to 18 years of age. It was found that there were about 300 junior clerks eligible, and in order that the offices might not be deprived of all their juniors at the same time the classes were arranged into two fairly equal divisions. One-half come on Monday morning from 8:30 to 10 and also on Wednesday afternoon, 4:15 to 7, while the other half come on Tuesday morning and Thursday afternoon at the same hours, with no deductions from wages. By this arrangement the students attend classes during hours that are about half in the firm's time and about half in

their own time. Tea is provided by the Company for all afternoon students from 3:45 to 4:15, so that there is very little hardship on any student having to wait till seven o'clock one night a week as compared with the old system of continuation classes which young people had to attend in the evenings on two or three nights a week. It will readily be noticed that the amount of time given at present by our Company for the education of junior employees is considerably short of what will be expected of them when the Fisher Act comes in force, but it should be borne in mind that this scheme includes all young persons up to 18 years of age, whereas the Fisher Act in the meantime only affects those between 14 and 16, and that it was started nearly two years before the Act was passed, and the experience gained now will be of the greatest value when the time comes to extend the scheme. Indeed, so much is this the case that Education Authorities are constantly inquiring for the particulars of our scheme and for any hints we may be able to give them as a result of our experience.

The original 300 students were also divided into two sections according to their ages. The first section consisted of those boys and girls 14 to 16 years of age and the second section of those 16 to 18 years of age. As the boys and girls all worked together in the General Offices, our education classes have usually been what are known as co-educational, that is, as a rule the boys and girls sit in the same classes and do exactly the same work. It should be noted particularly, however, that there is a distinct line of cleavage between the kind of education usually given to the junior students from what is usually given to the seniors. While the seniors receive chiefly a vocational education the juniors receive a general education, for it is recognized by all educationalists and also by business people who take a wide view that, as a rule, if a person is going to go far in any department of life he must have a fairly wide foundation of general culture. Our curriculum, therefore, for junior students consists of English (literature and composition) and arithmetic, and in addition, for the boys, industrial history and physical training, and for the girls some instruction in shorthand and Morris dancing. The curriculum for the senior students consists of English literature, science, bookkeeping, shorthand, and commercial correspondence and, for the girls only, hygiene, needlework and Morris dancing. Two or three things have now become quite clear to us—have become almost axiomatic—during the last three years. I. A continuation scheme of education to be successful must be altogether on different lines from elementary education. A new conception of education is wanted, a larger, wider conception, something quite different from the old disciplinary type in which classics

and mathematics were so determinative and eliminated all who did not have a capacity for dealing with the abstract. "This new conception is one which will offer equal opportunities to all for the development of such native capacity for leadership as they may possess, regardless of any fixed curriculum or social status." II. The young persons, as they are called in the Act, must feel that they are not being sent back to school and that they are not to be subjected to anything like elementary school discipline. They are all wage-earners, and this fact usually gives them a freer standing in their homes, and this freer standing must also be given them in their educational classes. III. The morning is easily the best time for education classes, for it is not only the best time for learning but it is also the time of the day when they can most readily be spared from business, for, as a rule, it takes some time in the morning before an office can get going, and usually the students who arrive in the office at ten o'clock feel the push of a good deal to do, and it is seldom that they cannot do as much between ten o'clock and five as they do on other days between 8:30 and five. At any rate it is quite remarkable that as much work seems to be done during the forty weeks in which they spend $21\frac{1}{2}$ hours of the firm's time in the Staff Training College as during the twelve weeks when they have holidays from the college and spend their full time at business. While I recognize that in some classes of work the withdrawal of young employees from production for seven or eight hours a week must diminish the total output, still it is the universal testimony of American and British employers who have instituted school classes in factory time that the amount is only a negligible and vanishing quantity, and the compensations in other directions easily make up for it and wipe it out. IV. We have not found what are known as lecture classes to be a great success; we always feel more certain that real work is being done when the students are not listening to a lecture nor listening to someone else reading, but are pursuing some line of work or research in which they are personally interested. A scheme of education must be found whereby less and less instruction will be given by the teacher and more and more will be left to the workaday interests of the students, to their own initiative and to the lines of study which they feel they ought to follow to achieve their personal ambitions. A hard and fast curriculum and a hard and fast time table will be the death of Continuation Schools. Many of these young persons have much dreary routine work during the week, and change and variety must be of the very essence of continued education, and they must feel at the same time that their education is not something which will tend to pin them down to one type of work or to any one business, but that

it is opening a door of world-wide opportunity, and putting in their hands an instrument that will help them wherever and at whatever they may ultimately work. It has, therefore, been the policy of our Company to give all its educational facilities not only free of charge but also free of any obligation to remain with the Company after their schooling is finished; for it is felt that young people must not only be given the power to get on, which comes through education, but that they must also be free to choose and live their own life.

APPRENTICES

In regard to the apprentices to skilled trades, of whom we have about 100, we started by giving them classes on Friday afternoons from 4 to 7 o'clock, but we soon altered that, and now instead of going to work on Saturday mornings they all come to the College for four hours entirely in the Company's time, without deduction from wages, for special tuition classes. Nearly all our apprentices attend evening classes provided by the Education Authorities two or three nights a week. They have, therefore, a very hard week's work and cannot have either the time or the facilities for much home study, and the idea of our Saturday morning classes is to give them tuition, to help them with their evening class work, and the teachers who take the classes are either University Graduates or highly skilled men in their own departments from our own staff. These apprentice classes are just about the best work we have done so far, for though the Managers find their work considerably dislocated on Saturday mornings, they all admit that their apprentices are now much easier to handle and are more intelligently interested in their trade than they were before the classes were instituted, and as many of these lads receive the highest distinctions in their Evening class examinations the purely educational benefit cannot be mistaken. The Apprentice Board advises the Principal of the College in the same way as the Office Board does for the Junior Clerks as to the fitting in of their daily work with their Education classes, while the Principal of the College sees that their Saturday classes fit in with their evening school subjects. A committee of the apprentices themselves is in constant touch with the principal and the teachers, as to the conduct of the classes, athletic club, social evenings, etc., and there is no doubt but what our apprentices now receive a splendid chance of becoming highly skilled and intelligent tradesmen, for they not only learn the craftsmanship of their job in the works but they also learn its science at the school, and through their committees they receive training and experience in responsible government and citizenship and in working together for a common end.

UNSKILLED WORKERS

So far we have been dealing with the education of young people who will, by and by, be classed as skilled workers; but when we come to deal with the education of what are known as unskilled workers we have to face a much more difficult problem, because the day's work of a junior clerk or of an apprentice to a skilled trade is what is known as intellectually 'energizing,' while the day's work of a young person at an unskilled jib is intellectually "enervating," that is to say, the work of the one quickens and enlarges the intelligence, but the work of the other, who is probably on some repetitive job, dulls and diminishes the intelligence, so that while the education of the former may be quite properly what is known as vocational, the education of the latter, who cannot possibly be said to have a vocation at all, cannot be along the lines of his work. To illustrate what I mean: it is quite easy to see how an apprentice chemist or engineer should receive teaching in chemistry, physics, mechanics, pure and applied mathematics, etc.; but it is impossible to see how a lad, whose work is to shape tin lids from a sheet by machinery all day long, can receive an education along the lines of his job. The unskilled worker must be provided with a scheme of education on different lines altogether. I have already indicated that we now provide educational classes for about 250 of our unskilled junior employees, 200 of whom are girls, while the remaining 50 are boys. These are divided into four sections of about 60, each section coming to the College four hours a week, entirely in the Company's time and without deduction from wages. The teachers of these classes are professional teachers employed by the Company, who give their whole time to the Staff Training College. The morning or the afternoon, as the case may be, is divided into five periods, one of which is for physical training and one of which, for the girls, is at present for music, and the remaining periods are for educational classes in English, arithmetic, etc. It is not necessary for me, neither would it interest you much, to go into the details of the ordinary educational subjects. The important and difficult point is the specific method by which we endeavour to overcome the enervating elements of their daily work. It is, of course, easier to overcome this with the girls than with the boys, since most of the girls may reasonably look forward to what after all is one of the highest vocations, namely, the vocation of the home. In the case of the girls, therefore, we include in the curriculum not only music, but also the various subjects included in domestic economy, housecraft, etc.

Before speaking more particularly of the curriculum of the boys, let us first take a look at the youngster who comes into our factory,

office or shop at 14 years of age, for he is to be the subject of our educational experiment, he is to become our industrial workman and our intelligent citizen. He represents about 85 per cent of the youth of England, for it is only a small proportion who continue at Secondary Schools. The probability is that if he is above average ability he rebels against school, because he is of an active nature and desires to handle and make things, because, in short, he wants to be doing something; or if he has only average ability, or perhaps even less than average, he has probably been sent to work not only to add to the domestic resources, but also because his parents do not think that further schooling is of any use and because the boy himself is "fed up" with trying to learn by reading, listening, and memorizing. Clearly, then, he must be regarded not as a receptacle for information but as an instrument that makes things, and the idea behind his continued education must not be the process of "filling a Gladstone bag for a journey, but rather the equipping of a workshop with tools." There is no inherent need for sorrow and grief for any such boy going to work at 14. On the contrary, it seems to me that no sight is more pathetic than that of an otherwise good lad drifting into habits of idleness, intellectual listlessness and indifference by continuance at a school where the education is largely literary, bookish and unattractive to his disposition, whereas no sight is so full of hope as the sight of a boy who is straining after a full and energetic manhood because his outlook is one of activity, self-expression, and adventure. It is not early work that is necessarily discouraging, indeed it may become a help to a boy if it is wisely used in the scheme of his continued education, and therefore I lay it down as our starting point that practical education must be the fundamental condition so that theoretical education may have a chance of success. In dealing with the education of the unskilled boy worker I would not begin with books and pen and ink, but with tools, compasses and pencil; not with learning, but with doing and making something; that is to say, with a hobby and his hands, rather than with a book or a lecture.

My idea for such youths is that a large departmental workroom should be fitted up for them where there will be workers in iron and wood and leather, and where a boy will learn how to weigh and measure quantities and fit one thing to another. A thorough practical knowledge of weights and measures and a steady power of accurate use of weighing and measuring instruments will always impart as thorough a mastery of arithmetic as will carry him handsomely through life; and moreover, as scientists have pointed out, the acquisition of this knowledge and mastery will have had a strong reflex influence on the youth's character, giving mental and moral balance, care, patience,

the feeling and nice desire for accurate statement of fact, power to weigh arguments and draw fair and just inferences. With this common idea of just weight and accurate measurement in every department of the Hobby School constantly in view, I would equip it with the scrap which is thrown away in every Factory which handles raw materials, and I would get the boys to turn it into things useful or ornamental which could either be sold for funds for the further equipment of the school, or could be kept by the scholars themselves. Why, for example, should not boys, and girls too for that matter, be taught how to mend boots, how to work in wood and iron and how to tend a garden? From 14 to 16, I would let the boys choose their own hobby on the Montessori system, and I would "Let them alone" with it occasionally. Everybody wants at times to be "Let alone," and no one more than the boy who has to follow a machine throughout his working day. "Handwork, to the great majority of children brings more than anything else that they are set to do, an opportunity of creative and constructive effort which makes direct appeal to their interests and gives free scope for their individuality and also a means of self correction; for here an error or carelessness is speedily shown up, not by word of the teacher but by visible proof. We are said to be essentially a practical people, and it is amazing that in our schemes of education we do not give a far larger place to the kind of work that is most in accord with this habit of mind and that gives exactly the training to which in other things we rightly attach the greatest value." In the Hobby School too there should be a Library, Writing and Art departments, Magazines and Newspapers. It would be a great mistake to think that all boys are keen on science and handwork, for there are many to whom literature, art, philosophy and history appeal far more. The key to successful continued education lies in real interest and self-expression, and the salvation of democracy from dull, tame, lifeless mediocrity lies in the cultivation of vital personal power. Every means should be used: Dramatic and Debating Clubs, Musical Societies, Games, etc., are all excellent channels whereby young people may find themselves and enter a wider world than seems possible from the standpoint of a repetitive job. As long as distinctively vocational training or teaching through hobbies is not allowed to become too dominant, exclusive, absorbing, as long as the specializing tendency does not enter too soon or demand sole sway, as long as the trade and wealth of tomorrow do not rob today of its present joy nor the past of its rich and refining treasures, so long will it help and guide, strengthen and promote the best practical ends and highest purposes of education.

We have not yet got our hobby scheme at Port Sunlight in operation but plans are maturing for fitting up small engineering, electrical and woodwork laboratories, and if the experiment is successful they can be extended as required. These laboratories are not intended to teach any boy a trade—that he must learn in the factory; but they will be a big asset in the unskilled boy's education and a source of pure joy in his life, and it can easily be seen that they can be made of the highest utility for illustrating the scientific principles that underlie much of the rule-of-thumb shop work learnt by apprentices to skilled trades. What we want our youth to acquire is wide general intelligence, so that they will be quick to understand a new job or a new machine, expert in the scientific laws of mechanics, physics, etc., so that they will see the inherent connection of things and be alive to the possibilities of quick changes and new developments. We do not desire them to be dungeons of learning nor to have a lot of information “in cold storage,” but to be practical, alert, intelligent, receptive of new ideas, used to experimenting and working things out for themselves, and therefore their education and the discipline of their minds should go on through their hands almost unconsciously. In this case, at any rate, “Practice is better than Precept,” and it remains as true now as in the days of Aristotle that “The end of man is an action, not a thought.”

Before leaving this section of my subject may I say one word of encouragement to educationalists though none of them may be here? They seem to fear that young people, when once the Act is compulsory, will return to school only under compulsion, and that the greatest difficulty will be experienced both in securing their attendance and inducing them to learn anything at all. Our experience is quite the reverse; we have far more applications for places than we can accommodate; the students at Port Sunlight at the end of the first term were given the opportunity of dropping the college altogether or of returning for a second term, and only two out of 230 failed to turn up. The boys have asked for an evening class in their own time, and those who are now 16 and who must, according to rule, leave to make room for others, have asked the teacher to take them at nights. Personally, I have the greatest faith in the average factory worker, in his natural ability, his horse sense, and his decent heartedness, and it is more than time that he should be given a chance of receiving the education and culture which are his due, and which he can appreciate and profit by quite as much as those more fortunately situated. Let educationalists be sympathetic and adopt common sense methods and pluck up courage.

Fear not ye saints, fresh courage take,
The clouds ye so much dread
Are big with mercy, and will break
With blessings on your head.

ADULT WORKERS

We have found that as soon as a systematic scheme of education for junior employees is taken up, the ambitious workmen and foremen or forewomen begin to ask themselves where they are going to be when these young people are working for them and when probably they know much more than they do. And so gradually there comes up the desire for special classes for adult workers, but as this question does not arise immediately under the subject which we are considering today, I only mention it in passing to show the inevitable and far-reaching consequences of continuing with education until you reap the rewards in adult life, instead of stopping in childhood with the almost certain loss of any little good that may have been accomplished.

PRINCIPLES UNDERLYING A WORKS SCHOOL

I have no doubt I have carried your assent to most of the ideas expressed so far in this address, but you may be asking yourselves why we are putting ourselves to the trouble and expense of conducting and financing a school of our own immediately attached to the business. You may think that education in any form is not a proposition that a business can handle, and that it should be left entirely to education authorities. I wish it to be clearly understood that I am not advocating the universal adoption of Works schools, but I am of opinion that under certain conditions they will not only fulfill the provisions of the Act, but they will actually give a better education than any other type of school. There are several subsidiary advantages of a Works school both from the educationalist's and the employer's point of view, but I pass them by and content myself today with the statement of one or two general principles. In the first place it is essential to remember that the average lad who starts work at 14 years of age has changed his life's standing ground, he has left school and childhood and his mother's apron strings behind, and his ambitions, interests and prospects center in his job and his workmates. He becomes a doer and a wage earner, and if there is anything in him he sees himself already a foreman or a manager. It is psychologically the natural way of giving him instruction to give it as part and parcel of his work, to create in his mind the necessary and vital connection between doing and knowing, between science and craftsmanship. As

he and his mates combine in manual activity in the works so they should combine also in acquiring knowledge of the things that give dexterity, knowledge, alertness, and power over nature. In a Works school, work and education are felt to be the instruments and expression of one life, they inhere in one another. The question is sometimes asked why the 19th century with all its brilliant achievement in scientific discovery and increase of production ended in such disastrous failure. The secret probably is, as has been wisely pointed out, that the great forces which move mankind were out of touch with each other and furnished no mutual support. "Art had no vital relation with industry; political economy was at issue with humanity; science was at daggers drawn with religion; action did not correspond to thought. As a result, nation was divided against nation, labour against capital, sex against sex and church against church." There was no cohesion, no concerted effort, no mutual support, no great vital advance. These facts in themselves are sufficient to account for the ineffectiveness, the ceaseless unrest, and the ultimate collapse of western civilization. Now the idea which underlies the Works School is an attempt to obviate some of this dislocation of life and the disturbing feeling that work is one thing and education something quite different. Nothing does more harm to the minds of children than the divorce between play and school, and nothing can be more subversive of all true education and social advancement than the perpetuation of the cleavage between culture and work. The time has come for industry to take up once more its personal share in the education of its junior employees which during the enormous developments in machinery in the 19th century it has almost forgotten. Obviously we cannot go back to the old apprenticeship system which dates back to the middle ages; mankind never goes back again, it can only move forward, but while it advances it ought to assimilate and make part of its life all the truth and beauty which have been spoken and expressed in the passing phases and struggles of civilization during its onward march. It seems to me, then, that the best in the old apprenticeship system can be reëxpressed in a Works School. The care of youth, which is a far more important duty for industry than its exploitation, can be honoured and practised with universal advantage in a scheme of education which, while nationally recognized as suitable and efficient by the Board of Education, is yet wrapped up in the everyday manifoldness of work and business. Such a scheme would soon make unnecessary much of what is known as Welfare work. What young people need far more than advice, or a burden of rules and regulations, or a hot house area in which they are protected and shielded, is inward power to regulate

their own minds and conduct, and this is precisely what a Works School proposes to create.

But apart altogether from this important principle of the unity of life, there are certain local conditions which would seem to make a Works School almost inevitable in order to carry out the provisions of the Fisher Act. Take our own case as an example. We draw our junior employees (and we have nearly 2000 of them) from an area whose radius must be at least 10 miles and from at least 5 or 6 different Education Authorities, and if these young persons had to be sent for 7 or 8 hours a week to about 50 different Continuation Schools in the districts where they lived, it would be almost an impossibility for the Company to keep in effective and constant touch with their attendance, the work done, and the progress made at the school. And besides that, there would probably be a good deal of waste time as between work and school and school and work. It seems then that the best and most economical solution of the problem is some form of Works School which while associated with the business is effectively safeguarded from exploitation (if such an idea ever entered the head of an employer) by the business. And I may say in passing, our works school has adopted effective safeguards by a system of Committees to which representatives of the workers themselves are popularly elected, and when the Act comes into force inspection by the Board of Education or by the Local Education Authority will be compulsory. Does it not seem to you as workers and business men that when this Act comes into operation, and when all your young people will be released for education for 7 or 8 hours a week, that you will desire to know without any equivocation how they are spending those 7 or 8 hours? My contention is that in conditions like ours it is only through a Works School that the employer can do so. And it is worthy of note that directors of education and professional administrators have admitted the wisdom of this contention. Moreover, one of the chief advantages of the proposed Continuation Schools is that they will give an opportunity of finding out where the real abilities and talents of young people lie. I have found that a rankling source of bitterness in many a workingman's mind is that he is not at work that suits him, and that he has never had a chance of finding the job that fits his real talents. It will surely be something of the very highest value if the youth can be fitted to the job and the job to the youth, and it seems wellnigh impossible to accomplish this desirable end in any other way than through some form of Works School.

Privately-owned schools have taken an honourable place in the history of education in England and they have helped to make that

history what it is; they have added their contribution to the making of English character and life. Privately-owned Works and Business House Schools may also fit in to the enlarged scheme of Education provided by the Fisher Act. They will be conducted according to all the requirements of that Act, but they will be run on the large scale, scope, and outlook of the business itself. They will probably be able to do experimental and research education work and their methods, results, and spirit should add to the interest in education and to the variety of approach to what after all is one of the highest and most evident duties of an employer and one to whose possibilities and rewards there can be no finality. But the idea of a Works School should not only be looked at as a sound educational method and as the best way for the Factory, especially if it is in a somewhat isolated place, to fulfill the obligations placed on it by the new Education Act; it should also be carefully considered from the point of view of its reaction for good on the Works or Business House itself, for it is like a wheel within a wheel—reacting all the time on that which created and maintains it. I believe that a Works School or Staff College attached to an Industry or a Business, conducted on large, human, sympathetic lines, will not only give all boys and girls a share of the invaluable pleasures and opportunities enjoyed by those who at present have the privilege of a public school education, but it will give them also the wider outlook, the self possession, the tolerance that are associated with such Secondary Schools and College life, and it will impart to them the knowledge, the insight and the spirit which, when they apply them in after days to industry, will raise factory life out of the selfishness and bitterness of its earlier unregenerate days and make it a means of expressing the joys of contented and happy labour and of gathering the fruits of industrial peace.

Today I have directed your attention chiefly to the educational side of a Works School and have laid the emphasis on its practical aspects though I am well aware that education for livelihood is but a part of a much wider and more ideal education—education for life. Workers today who sometimes feel as though machinery had caught them up in its wheels, are urgent in their demands for more leisure. This demand is at any rate intelligible, for work to the great majority of people is not exactly poetry and dilettanteism, it is hard, grinding, dirty drudgery. Shorter hours and more leisure are bound to come and this leisure they should be trained to use, their eyes must be opened and their ears unstopped to enjoy life in all its rich and infinite fullness. But I have not regarded that kind of education as coming within the scope of my address and I admit I have only touched the

fringe of a vast and engaging subject. Whatever may be thought of these wider aspects of education however, I feel sure, if I read the signs of the times aright, that new employees will soon receive scientific instruction about their job and its opportunities before they start in on it. And this training will be given by skilled workpeople who have first received instruction themselves in the science and art of teaching. Consider what an enormous saving in time, temper, and turnover this will mean and also increase in both personal efficiency and speed of production. Moreover, new employees will be taught the factory rules and regulations and safety appliances, and will be personally initiated on the threshold of their work into all the firm's institutions, sickness and holiday benefits, facilities for insurance, etc. etc., so that they may know where they are from the very outset. All this will tend to generate and build up the right spirit and good will of a business amongst the employees; and it is only as knowledge is acquired and good will is created and as they go hand in hand that an industry or a business house can prosper, and function as a living asset in the democratic world of today.

II. TWO EXPERIMENTS IN VOLUNTARY CONTINUATION SCHOOLS

By E. T. BAZELEY, Whitelands College, Chelsea.

(From *The Journal of Experimental Pedagogy and Training College Record*,
March 5, 1921.)

I.

The field of the first experiment was a manufacturing town, Q., where two prominent firms had invited the local authority to open a continuation school—the first in the city—for some of their young hands. The first firm, A, owned three large paper and colour printing works; the second, B, were sweetmakers. Each firm contributed thirty girls; the sixty girls from these four factories came in three classes of twenty, for two four-hour sessions a week.

A difference in the attitude of the girls from the two firms was at once perceptible. Firm A, realizing that the idea of “going back to school” was likely to cause resentment among the girls and their parents, had been preparing carefully for several weeks. Foremen and forewomen had been consulted, and the idea of the school explained to them. A letter had been sent to the parents of each girl of an age to go to school, addressed to “Dear Mr. and Mrs. C” and informing them that a school for some thirty of the firm’s young girls would shortly be opened by the Local Education Authority and asking them whether, *if their daughter was selected*, they would be willing for her to attend school. The result of this letter, making attendance at the classes the result of selection, was that almost every parent wrote eagerly asking that their Jane or Polly might attend.

Firm B, however, were unable to make any preparations of this kind; it was a time of great expansion of trade, and all the new girls taken on were merely told that they would be expected to attend school as a condition of employment; and the consequence was a good deal of suspicion and resentment among the girls, very little support from the parents, and some opposition from foremen and women.

Firm A gave me the opportunity of going over their three factories and having a friendly chat with the future pupils. I did not realize at the time what a difference this would make. It meant that these girls knew a little to whom and to what they were coming. At Firm B I also made a tour of the works, but I had no opportunity of seeing the youngest girls scattered over a vast factory among gangs of older workers. Consequently these girls started for school full of apprehen-

sion, on the defensive, and, at the worst, hostile—their recollection of their day-school being, as I soon found out, mostly of a time of restraint and boredom, if of nothing worse.

The girls from Firm A, with one or two exceptions, came willingly to school from the first; but with the girls from Firm B, it was, as soon as they got on friendly terms with me, “Miss, have we *got* to come here till we are sixteen?” After the first three or four months, however, it was, “Miss, all the girls in my room wishes they could come to school”; or (from a new girl), “Miss, I thought it would be like day-school, but I loves this”; and, “Miss, do you think they will let us stay till we are sixteen?”

There were, however, some irreconcilables to the end.

The school was composed of girls who differed extraordinarily from one another in every way and in their attitude towards the school. There was every degree of intelligence and illiteracy, from that of a child who had lately attended an M. D. Department, to the comparative eagerness of Zöe and Winnie from Standard VII.

To illustrate the difference between the girls, I give brief sketches of three members of one class.

Lily generally wore a clean white blouse and a short stained blue alpaca coat and skirt, with a green cap. She was tall, had a lovely complexion, short curly hair, blue eyes and a most attractive smile. She was tired-looking, she did not want to exert herself to do anything, she did not want to dance, though she was unusually light and graceful upon her toes, she just wanted to loll and giggle with her friend Alice. Her home was in a respectable, airless, mean, yellow street, with small, dark houses, in a district known as the Marsh. Near by was the cattle market, and the sounds and sights of stampeding, terrified beasts, the shouts of men and boys, were separated from the Marsh only by the canal, which was made yellow by the refuse from the Chemical Works on the opposite bank. A dark passage led into Lily's living room; the mother looked old and worn-out. She was dark, drab, dirty, ragged, nursing the baby, but she still had Lily's heavenly smile. A boy and girl of school age, ragged and dirty but with the same smile, were sitting at a dirty, unattractive table for dinner, on which was a loaf, withered lettuce leaves, onions and vinegar. The eldest girl, looking very ill and said to be suffering from tonsillitis, was home from work.

The mother, only just recovering from the baby, said, “Ah, Lily is a lily, isn't she? And a good girl to work, when I was bad she scrubbed the whole house down. She did that too, Lily did,” pointing to a large sea-shell, used as a door prop, which had been blacklead all over and polished till it shone.

Every day Lily goes home here, sleeps, gets up and goes to work in the factory, a well-built one, but also down on the flats. When the works close at 5:40 she is tired, gets herself home, over the bridge, through the Cattle Market and along the canal. She cleans herself, has her supper, and walks up and down beside the canal, occasionally she goes to the pictures. There are absolutely no resources in the home, nowhere to cut out or keep anything, no scissors, no books. Lily is sent to school and is expected to make a mental effort and pay attention as a member of a class to remote subjects far, far away from her world (what would not be?) The marvellous thing is Lily's freshness, gentleness, good-nature, her listlessness is nothing to be wondered at—she is the shining hope of her home.

Alice, Lily's friend, was a thin, poorly-dressed, vivacious girl. Good-natured, idle, witty, sociable, she never worked and never minded being bidden to do so. At the party Alice wore a transparent chiffon hat and a white jumper with society airs, which she could assume in a rather delicious manner. It was Alice who, when we were off one day on an afternoon expedition, insisted on our missing our own tram, in order to take charge of a blind man and help him on to *his* car, which did not happen to be ours.

Over the way from Lily, on the prosperous side of the street, lived *Rose*. Her father was a coal-heaver, and Rose was the freshest and trimmest of young girls. She was very well looked after by her mother, and was tidy, self-satisfied, and limited to a degree. She was always attentive, and occasionally interested in artistic things. She liked dressmaking best, and made herself a blouse at school, which pleased her mother very much. She left to go to work at another factory, where the conditions were notoriously rougher, because there was a rumour in the district that at 17 girls earned 30s. there. With firm A Rose had failed to get a rise owing to the very average quality of her work. Not seeing any connexion between value of work done and rise of wages, Rose and her mother quite believed that she would soon be earning at the highest rate. The whole policy and outlook of this family, with its tidiness, comparative comfort, and piano in the front room, was dominated by the schilling, just as that of many other families a little lower in the wage-earning ranks is dominated by the penny.

Lily's family was different. Here one felt there was a certain instinct for spiritual values, but their freedom from material trammels was not that of the margin due to extra wages, but of a sort of stark carelessness of circumstantials; they had long since thrown overboard anxieties and struggles over material comfort and financial security. Such is the lot of those who live under our weekly wage system.

When I planned out the work for the Continuation School, before it opened, I did so under the delusion that I should find something to continue. I had previously taught Standards VI and VII, and I had always found I could get them actively interested—or, at any rate, to appear to be actively interested—in geography, science, literature, or whatever topic we had in hand.

I thought I should be able to work on the same lines with my continuation-school girls. It was far otherwise. Two main tendencies I found among my girls; firstly, that they were extremely disinclined to make the least mental effort. As soon as they perceived that they were being expected to attend to a geography or history lesson, their minds (with two or three exceptions) spontaneously assumed an attitude of, at best, passive, and often active, hostility, their faces expressing blank indifference or antagonism. Secondly, I found that of all the wide range of interests common to the healthy-minded young person, all but one seemed to be extinguished. They had no spontaneous interest left in things, affairs, or ideas; their one dominant interest was in people and in personal relationships.

There is a famous picture of Hope, blindfold, with all the strings of her lyre but one broken, sending one solitary and repeated note, her last, into interstellar space.

That picture represents many of these young manual workers. Almost all the quick and living interest in the world outside them, which was probably as healthily alive in them at the age of three as in more fortunately-placed children, has been quenched long before they reach continuation-school age, by the folly of much of our educational method and the squalor of our overcrowded streets and homes. One single strand of interest is preserved, one string only can one be sure will vibrate, namely, this interest in personal relationships. Left to themselves, they tend to sentimentalize and sensationalize whatever personal relationships come their way either by actual experience or, at second-hand, through the cinema. This interest in people is the teacher's one remaining road along which he can lead the class out into the freedom and healthiness of disinterested interests, his one remaining tool which he can depend on to effect his purpose. I have never failed to find them listen with rapt attention to a story. What is more, they instinctively, if unconsciously, measure their own sordid fantasies against a really beautiful and absorbing story, with the consequences that the whole level of their effort and aspiration is raised.

I found, too, that if I presented a distasteful subject, such as geography, in the form of a story of personal travels, illustrated with sketches, they would listen with delight, and would even swallow maps if introduced casually enough.

I need hardly add that they not only had no inclination, but not the least idea how to use books on their own account.

How can one account for this extraordinary poverty of mental background and interests? My study of the girls led me to account for it in some measure as follows: the primary day-school provides a quasi-literary education, but the homes of the majority of unskilled workers are not literary in any way. They contain no books, no ideas. There is no continuity between the life of the average home and the life of the school; one must remember that the children of the working men who do think and do have books, mostly go on into central, trade, or secondary schools, and do not find their way at fourteen into factories. As soon as a child leaves the elementary school, she is reabsorbed into the illiterate life of the home, street, and factory. Welfare workers understand what I mean when I speak of the (to a teacher) amazing illiteracy and ignorance of girls who have perhaps only left school a few weeks previously. It takes but a few weeks to obliterate the literary manners taught in school.

.

Why, one asked oneself in the second place, have they such an aversion from mental effort? Why is it of all things the most intolerable to them? One of the girls, in a class discussion on compulsory attendance at classes they did not like—a girl from Standard VII, a jolly, bright, friendly person—said, in one of those illuminating utterances one gets from children now and again, “Why we hates these things now, Miss, is because when we were at day-school we were forced to learn the things we did not understand.”

As a result of intimate study of my girls, I formed the opinion that for the first few months very little attempt should be made to teach them by means of even simple generalizations, such as one would use with children of the same age of the high-school type. Oral lessons were overdone with these children in their earlier years. They were prematurely taught in terms of generalizations and mental abstractions at a time when these were meaningless to them, so that now, as young workers of fifteen, words conveyed extraordinarily little to them. In intellectual development they are still children much younger than their years, with a child's appetite for particulars and picturesque detail. Geography must be reintroduced to them not by maps nor even by local geography, but by stories of how people and animals live in foreign countries. History must be represented to them not as the development of nations and of causes, but by means of the stories and aims of national heroes, such, for instance, as those of Garibaldi.

I soon found that they could not learn much at this stage by any form of verbal teaching, but very much by experience, by doing of every kind. It became clear to me that the first few months of the Continuation School for these young factory workers must be a period not so much of class instruction, but of re-education by doing. They had their first fruitful experience of concentrating their attention, not in the medium of words, but in that of rhythmic movement. Most of them found themselves not by an attention, which they are incapable of giving intelligently to the ordinary subjects of class instruction, but by every form of artistic and useful handwork, by dancing, singing, and rhythmical work, by stories and dramatic work. Given this period of preparation, which will be longer or shorter according to circumstances, they will be ready for class instruction in most of the topics of human interest.

There was another cause, or group of causes, which prolonged this period of preparation and operated against the children settling down quickly into that organic co-operative unit, a class.

These causes, which I shall now consider under the head of discipline and of buildings, were closely interwoven in the case of this particular school.

The popular educational ideal of many authorities in the school world is expressed by the formula that "discipline is the first thing." In many day-schools discipline is the first, second, and last thing—the external discipline, that is, of a sometimes benevolent and always arbitrary authority. The background and foreground of an ordinary school is rigid discipline, maintained by authority, based on fear. Next to discipline, but a long way second, is instruction. So many people want their results at once. They want them the moment the child enters the infant school; they cannot even wait for the results to begin to appear in Standards VI and VII. Consequently, from the infant school to Standard VII we have a uniform, unprogressive, external discipline; the child is as unintelligently obedient to authority at seven as he is at fourteen.

At fourteen these well-disciplined children are let loose into the works and streets, and in three weeks the only trace of this discipline left is in unreasoning, instinctive hostility to, and suspicion of, authority, a hostility which embraces everything which has ever been associated with authority. The children are let loose without any inner traditions of self-control, without any idea of group loyalty or service, with no idea of the principle of obedience, but only with a memory of the sterile practice of it; most of them (not all) are aggressively selfish and individualistic and many of the remainder are passively on the defensive.

A situation of this kind demands that those in authority shall be people who are able to practise the principles of leadership rather than methods of coercion.

I, of course, believe that discipline, true discipline, from within, is the aim and end of true education; it begins to be built up in the nursery, it progresses bit by bit with one experience after another as one stage of growth follows another, until at about the age of seventeen or eighteen you begin to have a social being, capable of self-direction, ready for every mental and physical exertion and capable of intelligent service to the community and enjoyment of the world in which he finds himself.

How did our school-house reinforce this tendency on the girls' part to a suspiciousness of authority?

We were housed in a solemn building which never belonged to us in any sense. Further, it reeked of school, its very aspect suggesting restraint and boredom, whilst inside it had the drab look one associates with empty Sunday schools, populated only by vacant benches and with all interesting worldly objects eliminated. We were fenced in by prohibitions at every turn. In our classroom was a large glass cupboard full of fairly attractive-looking books, the lending library of the Sunday School. We were not allowed to have these books out even to look at, neither could they be removed to another room. There was a large, well-proportioned, well-lighted hall, most excellently suited for singing, country dancing, and physical exercises; but we were forbidden to enter, and had to content ourselves with an ill-shaped room in the basement. We were quite naturally forbidden the use of the Sunday School piano, but the girls had a gift for discovering harmoniums and additional pianos lying idle in unsuspected meeting-rooms, whence they were driven by the vigilance of the caretaker, an ex-sergeant-major. We had no walls we could call our own upon which we dared hang a picture or put our own rude attempts at beauty. We had not an inch of outside space, no room for games, no room for friendliness with beast, plant, or cloud outside our classroom.

We needed a playground with swings and apparatus for games, a strip of garden for plants and animals; we had a small library, but needed a growing one, as well as extra space and more materials for handwork and domestic classes.

The consequence was that though in many ways the girls found themselves in conditions quite unlike those of their day-schools, yet there was enough of authority, linked with prohibition, about the building, too many things they might not do and not enough variety of things they might do, to stimulate once more within them the old

demon of boredom associated with instruction, and of a tendency to find their chief interest in doing the things the sergeant-major type of person stood for forbidding, rather than in the constructive activities to which their teachers invited them.

As I look back I realize that it was no wonder the first few months of the school were such hard going. But at last the spirit of the school was born.

I have referred before to the individualism of the girls. Though a friend might help a friend, there was very little spontaneous co-operation for the good of all. The spirit was rather that of a watcher keeping a jealous eye on the other fellows to see that they were not treated better than he was himself.

Towards the end of the first six months we decided to have a party to which the girls invited any or all of their friends. Owing to the fact that the girls were at work all the morning, the teachers prepared the feast, decorating the tea-tables and rooms with flowers. The caretaker suddenly and unexpectedly relented from the severity of his guardianship, adopted the school, opened the door of the large hall, produced the key of the piano from his pocket, and invited us to use this room instead of that in the basement.

Later in the day he was found presiding over the tea-urn in a side-room, with a group of lamblike girls bearing cups of tea away to their guests. Rather a contrast for him after weeks of chasing " 'ardened young girls" from those parts of the buildings which we all so conscientiously tried to keep sacred to the Sunday School.

This party was the first opportunity taken by the girls for spontaneous social service. During the previous months, in spite of many chances, they had shown only the faintest inclination to do things for the good of themselves or of the class; but now they spent themselves in the sweetest and most unselfish way in taking care of each other's mothers, sisters, and baby brothers. For almost the first time, in their singing and country dances they all worked together in perfect harmony, and all seemed to be moved by the spirit of the best of them, of eagerness to do everything and by a joyous wish to enjoy and not to grumble, and to make everyone else enjoy the day. As one of them remarked with a happy sigh, "I think it's going off very well, Miss, don't you?"

After this we were no longer a crowd of individuals, each seeing what he could get for himself, but we were a community with a spirit of fellowship born through a simple opportunity for social service. We were ready now for the co-operative effort of class instruction, as well as for many other things.

II.

The second experiment was due to the co-operation of a drapery and furnishing house, Messrs. E. F., with a training college. The firm agreed to send some twenty-seven young ladies, between fifteen and eighteen years of age, to classes at the college. I understood, though I never obtained details, that the announcement of this decision caused a deputation from the young ladies to the management, in which they expressed disapproval of the idea of going back to school. At a later date, when we knew each other well, I got them to write down what they had felt when they heard they were to go to school. I give some extracts:—

“I am tired of school and would rather stay at business and learn all about that first.”

“At first I felt cross, as I thought we should learn typewriting and shorthand, which you know I hated at Central School.”

“I do think it is a shame if they only knew how I dislike the idea I am sure they wouldnt let me go but the firm says we have to. Good luck it isn't very long three hours a week. I don't now why I dislike school but I alway did right from a little girl and realy I was pleased when I was fourteen and could leave and now they have made it a law that we have got to go until we are eighteen. I was realy angry and said I didn't know what would happen next.”

“I am ever so glad that I shall be going to school again, especially to the College, which I have passed so often and often wanted to have a look inside. I was very sorry to leave school when I was 14.”

“At first I was so prejudiced against the classes that I did not trouble to take any interest in them.”

Out of sixteen of these girls, one came from a good secondary school, two from a central school, the rest from elementary schools. They were the ordinary young ladies in neat navy-blue frocks of the counting-house and sales departments.

At the end of the first month we had got on so far that we had an informal debate, following on some lessons on home life at Athens and Sparta and the education of the boys and girls. The subject proposed for discussion was (1) “Whether you would rather have been an Athenian or Spartan girl?” and secondly, “Whether it would have been better to be an Athenian or a Spartan boy?”

It was an extraordinarily interesting occasion from the teacher's point of view. Under the guise of discussing educational problems of other boys and girls, the group faced some of the tendencies and thrashed out some of the difficulties of their own lives. They showed

not only vigour, penetration, and sound judgment, but, what was more surprising, a concern on every hand for the happiness, not of the individual, as an end itself, so much as of the family.

I give a few notes of some of the speakers, and of what they said:

Miss Brooks (17) had gone straight into business from St. VII. She spoke in support of the Spartan girl's education, with a thoughtful, absorbed face, as though she were really feeling the woman's need for outside interests. "The more pleasures (interests) you had, the more you had to hope for in life and the less dull you were. When the girl did marry and settle down, the better she would be for her family."

Miss Vickers (14-7), with a very responsive face, sensitive, intelligent, and with a sense of humour, thought that "Spartan girls must have been what we call tomboys." She bravely maintained, against all opposition, "that women need not be brave, as the men have to do all the fighting and the women have to stop at home."

Miss Mortimer, a thorough young lady, fast becoming conventional, well-dressed hair and a pretty, expressionless face, resorting to the powder-puff in moments of stress, here burst in in favour of women being as brave as men—"Where would the Belgian women have been if they had not been brave enough to defend their country?" She thought that the Spartan woman would be happier because she would marry for love, and that was better than having your father choose for you. And, another thing, the Spartan girls, being brought up in the open air, *looked* well; but the Athenians, being indoors, grew pale and had to use rouge and powder."

Miss Robinson (17), tall, anæmic, rather silent, with a natural gift for colour and a family which made rather many claims upon her, thought that girls should have a sensible, open-air education, and learn to do things with the boys, "because when you are married you can learn to do the household things, but you need not spend all your life beforehand learning them." "And now," she added, after the voting had taken place, "let's vote which would have been the best family."

Miss Stanley (16), beautiful, intelligent, fairly well educated, spoke in favour of the training of the mind as well as of the body. She thought that "when women stayed indoors all the time it made them peevish and discontented, and perhaps the children would get the same and it would not be such a happy home as if the women did things outside the family." She thought that "the Athenian woman was really more like a slave; but the Spartan woman was the same as her husband." The Athenian boy's education was far better than the Spartans. "At Athens they learnt to read, to write, and to think, as well as to train the body. If you were not to learn to read, you would

be more like an animal. At Athens you learnt to love beautiful things; at Sparta you thought only of being a soldier. The Athenian man would be better in his family because he was better educated and would be more considerate. The Spartans might be very brave, but it was better to be able to think."

The voting was—one in favour of the Athenian girl's education, fifteen for the Spartan girl's and thirteen in favour of the Athenian boy's, three in favour of the Spartan boy's.

After the voting, Miss Stanley asked—"Weren't there *any* of the Athenian men, who had had that lovely education, who did not think for themselves that it would be bad for women to be kept at home and have no education?"

The teacher hereupon told them about Euripides and his plays, referring also to the struggles of women in the days of Florence Nightingale, whose statuette was on the mantelpiece. They listened intently, especially to what was told them about the tone of the tragedies in reference to the treatment of women and slaves.

How did we get to the consideration of so "dry" a subject as different types of education?

From the topic of clothes.

In order to make my final point I must trace the course of development in some detail.

I. The first lesson was a music lesson, including singing and rhythmic movement.

II. The second was occupied in looking at specimens of college students' handwork and art and in themselves making the first steps in colour study.

III. To this, a music lesson, the teacher brought two of her pupils from outside who wore their tunics and danced barefooted with great freedom and grace. This appealed to the E. F.'s, and they seemed to enjoy the lesson. Afterwards, however, they came running up and said "Could they change into the dramatic and country-dance classes?" to which another group of the girls was going. They thought they would do better at these subjects than at painting and Eurhythmics. Teacher: "Yes, you certainly shall; but it will take a few days to rearrange you." A girl: "You see, we don't think we can ever get good enough at Eurhythmics, in seven weeks, for our concert, and one is gone already." Teacher: "As I watched you, I thought you were really quite promising, and as soon as you have got over the first awkwardness, which everyone feels, you will get on very quickly." A girl: "Let's stay in the same class, after all!" To which they all agreed. Another: "We feel rather silly on the floor, in our business frocks."

Teacher: "Well, I couldn't help thinking, if you only had tunics like the two visitors, you would feel ever so much better." Girls: "Oh, do let us have tunics. Coloured tunics." Teacher: "About the painting-class, the point of it is not to turn you into painters, but to help you to choose colours well and to put them together beautifully, *e.g.* to choose the right colours for tunics." Girls: "Yes, and we could make them in the handwork lesson."

IV. The colour study of plenty of different flowers was continued—pansies, azaleas, and others from a country garden. They loved the flowers and settled down like a lot of happy butterflies to their paints, forgetting that they thought painting rather useless.

The teacher also showed them classical pictures of Greek dancing and running girls, and talked a little about the life of Greek boys and girls as the dancers of ancient times.

V. Music. The teacher played, among others, a piece which the girls recognized as a *lament*.

VI. More painting and talk about choice of colour for schemes. The teacher showed them more pictures of Greek sculpture illustrating dress and customs among the Greeks.

It will be seen that these lessons, took the form of more or less informal doings, talking, and showing, not very long of each. They were followed by:—

VII. A solid lesson on life and education in Sparta.

VIII. Music. About half the class ask to stay on an extra half-hour.

IX. Athenian life and education.

X. A comparison of life and ideas in the two cities. The class decides to have a discussion.

XI. Music. They study "Asa's Tod," and are told a little about Grieg, as a composer of the North, by someone who comes in accidentally.

XII. The debate.

XIII. Return to painting. More patterns are looked at for the tunics. Class led to think about the difference between a patchwork of colour and a colour scheme. Picture post cards of old masters and others are studied from the point of view of "matching" the colours. Incidentally individuals make comments, and some decide they would like to go to the National Gallery.

XIV. Music. Their teacher agrees to give them an extra evening every week.

XV. Comparison of the different colour analyses of the pictures made by the class (some of these showed surprising power).

XVI. The class is told the Norse story of Balder, to which they listen with speechless attention.

Afterwards they finally settled the colour scheme of their tunics for some of their rhythmic studies.

I think I have now given the patient reader enough material to make my point.

My problem—the problem of every teacher in a continuation school—was (a) at first to free the girls from their prejudices against school, and (b) to lead their interest out into fields of permanent value.

I knew by experience that if their energy was locked up by either open or slumbering antipathy to school, there would be very little for me to educate. Energy or interest which is fixed in hostility is not available for purposes of creative study.

By a combination of happy accidents and fortunate plans, circumstances played into my hands at the beginning in the matter of freeing them from prejudices about “going back to school.”

(a) (accidental) Visiting the office at Messrs. E. F., when making arrangements about classes, and not knowing my way, one or two flappers were put in a position of the right sort of superiority by directing me to the office.

(b) (planned) In order to allay apprehension about going to an unknown institution, I arranged to see the young ladies at their house of business. On seeing me approach at the end of the corridor, there was an involuntary movement of flight—“the teacher!” Having good manners, however, they remained to view me at close quarters, and found I was not dressed in a severe pedantic style. I told them that I could only give them three hours a week, instead of four which their directors had offered me, as one of my teachers had fallen through.

(c) Owing to accidents in organization, the two classes did different work, thus at once giving a motive for looking forward to a “concert,” in which they could entertain each other and their friends.

(d) The accident that Messrs. E. F., could not send the girls as early in the term as we had originally hoped, gave the girls at the beginning and doubtful stage a shorter term to face—everyone can manage to endure seven weeks, whilst the thought of twelve or fourteen might be very wearisome.

(e) In the same count it has turned out to be extraordinarily worth while to have begun with *three* hours a week only instead of eight. At the beginning, and before their interests had been awakened, eight hours would have hung very heavily and seemed a very long time. After a month we could not cram in all the things we wanted to do. The girls themselves began asking, “Why can’t we have the eight hours?”

(f) The accident that the classes could not begin until the summer instead of in the winter term made various spacious rooms at college

available which are too cold to use in winter. Consequently we could have all our classes at college and not on the business premises. I could from the outset talk to the girls of going to classes at *college*, instead of ever once referring to a continuation *school*.

(g) The crowning accident—owing to a case of infectious illness in college, we had our first lesson in the garden. This added to the informality and to the enjoyment of the lesson. If they found it rather strange to focus their attention and adapt themselves to a painting lesson, at least they enjoyed sitting in the garden, with the sun shining on the grass and trees and on groups of students sitting about at work. Without knowing it, they found themselves part of something tangible, cheerful, young, and with a purpose of its own.

By the fifth week we were ready to take up the whole eight hours and to make use of a library. By this time we wanted a reading-room, with all sorts of books contributing to all the different trails we had started, such as—

Costume from classical times to the present day.

Social life in Athens and Sparta and other books and illustrations necessary for visits to the British Museum.

Greek myths and legends.

Plays of Euripides.

Geography of Greece, with illustrations.

“The Outline of History,” by H. G. Wells.

Books about pictures, e.g. illustrated monographs on Rembrandt, Raphael, and others, necessary in preparation for and discussion of visits to the National and other picture galleries.

The Life of Florence Nightingale and other books and novels illustrating the life of the last seventy years.

Books of Norse myths and of poetry.

Plays, novels, and histories for the dramatic class.

Plenty of stories and of current literature such as illustrated monthlies and weeklies.

The preparatory period, in which the young people shed their prejudices and learn confidence in themselves and in their grown-up friends, is now safely passed through. The teachers have had time in which to watch for and follow the slender thread of the young people's interest, and by means of it to lead them to new and unexpected worlds of doing, thinking, and seeing. We do not need to settle down, but to go forward with our quest into the world of music, movement, colour, drama, literature, history, and thought. We do not need to settle down too much, it is true, into limited and formal channels, though this is necessary, too. One of the secrets of our present happiness, I believe,

lies in this, that to begin with we took up some apparently trivial, spontaneous need—such as a desire for coloured tunics—and in following this up we have kept on discovering fresh vistas, have kept on touching on fresh continents of material or thought. The children have been conscious, not of limitations, but of possibilities. What we now need is certainly to consolidate our possession of the territories already sighted, but at the same time to keep our freedom and our sense of undiscovered treasure, and to go on taking up interesting topics, whenever life happens to put them in our path; and it is in this way that I should like the approach to science and to the study of the Bible to come. I want science to start not in the laboratory, nor even at the microscope; but in some explanation, casually needed on some ramble, or a question asked during the painting or cooking lesson.

Once the question has been asked, or a direction given by a girl, it rests with the teacher to carry the matter forward and to make the study as thorough in any particular direction as the girls are capable of making it.

When I ask myself how is it that these flappers from a drapery establishment have developed more interests in six weeks than my little factory girls did in as many months, I see one reason standing out more prominently than others. The young E.F.'s have been put into an *interesting*, unconstrained environment.

The common room is a beautiful room, with pictures, papers, books, and interesting objects—one girl espied the spinning-wheel on the second visit, and asked me about it; so also is the art-room. The garden is nothing but a town garden, it is true; yet it is a patch of grass and trees, and gives that indescribable sense of well-being that one gets from the presence of grass and trees. In unexpected corners are runs for various animals. It all presents a situation full of interests and possibilities.

At Q. (described in Part I), on the other hand, the anticipation of boredom and apprehension of compulsion was not dispelled by the building. There was nothing interesting or beautiful there. It had the atmosphere of a Sunday afternoon with all the books and toys put away.

It is a mistake to try to teach boys and girls in a vacuum. It is better to teach in a mud-hut, with the jungle at one's door, than to try to teach in any of our schools with the world shut out. What we want is to open the doors and let life in; instead of that, we mostly eliminate to zero.

At a delightful entertainment given by the girls at the end of term, we had evidence that our education had been brought to the final test

as to whether it was real or merely superficial. The girls were certainly different beings in college; but did the school make any difference in their bearing in daily life, we asked ourselves? One of the mothers came up and said she was so thankful her Dorothy was coming to the classes; she had been so dull, timid, and lifeless, she did not know how to rouse her; but since she had come to college she was full of life and interest and seemed a different girl.

I am convinced myself of the importance of following clues which emerge apparently casually in one's intercourse with the girls, in, or more often out of, set lesson periods. These clues seem to lead to what the children need. I have given details of the actual lessons at so much length because I want to show that we probably educated the girls and started them on the road of thought and of corporate effort, because we had first satisfied and elevated their different sense hungers. Their search for colour, which makes an instant and unlimited appeal to them, was not only gratified, but through it they found themselves led to study and to compose in colour. So also their delight in movement, rhythm, sound—all elemental cravings were sublimated in the eurhythmic and singing lesson.

The temper of the continuation school will decide whether the girls' demand for sensation in human affairs will be gratified by the 4d. novelette and the suicide down the street; or whether the romance and dramas of the literature hour and the library will widen their sympathies, their knowledge, and their selecting power, touching their motive force to fine and discriminating issues.

The school stage will decide whether their comic muse will spend itself in the most delightful and resourceful fun, entirely of their own invention, or on the inanities of the comic press.

I offer two more comments of the girls, to illustrate one last fundamental need of adolescence—the first, on the education of Sparta: “I think it must have been a *good* education all together in the open air. *They must have had so many friends.*” And the second, on the school: “I have been congratulating myself on being under eighteen. The teachers *treat us more as companions* than pupils.”

It seems to me that it is in this direction that continuation schools have a chance of meeting a need which has never yet been fully met. They may become the homes of many social, æsthetic, intellectual, and practical activities, and most of all they may become camping-grounds for fellowships of youth.

III. GERMAN CONTINUATION SCHOOLS

The next article, which describes one of the most interesting continuation schools in Germany, is included because it illustrates how successfully the part-time schools were made to serve the purpose for which Germany established them. Little has been known of the condition of German schools since Mr. Best's article was written in 1914. The following clipping taken from *The Times Educational Supplement* (London) of October 1, 1921, seems to indicate that the continuation school has been permanently established as a part of the educational program. *The Times* clipping is quoted in part:

Speaking before the recent conference of welfare supervisors organized by the Industrial Welfare Society at Balliol College, Oxford, Dr. C. W. Kimmins said he had just returned from a visit to Strasbourg and Germany, where he had been investigating the present position of the day continuation school movement.

Dr. Kimmins is quoted as saying:

In Germany, where the schools are now so firmly established, the story of their development is particularly interesting. The institution of the day continuation school was never compulsory in Germany; it was purely optional for each area, but the area having voluntarily introduced it, the scheme within certain limits was fixed. In other words, an excellent form of organization for compulsory attendance at the continuation school for six to eight hours a week was submitted, and the different areas were allowed to adopt or reject it at their discretion. For many years it was only worked in a few districts, but the fame of the new movement spread, and the great value of the day continuation school, both to employers and employed, became so widely recognized that it was adopted by an ever-increasing number of areas until it became practically universal.

In 1913 I was inspecting the day continuation schools of Frankfurt, Berlin, and Charlottenburg, and in order to see how the schools had borne the strain of the war I again visited those in Frankfurt this August. Not only have they been continued throughout the war, but the time per week had actually been increased. It appears that the proportion of time devoted to technical as distinct from cultural subjects had somewhat increased since 1913, but the schools are as popular as ever. It was interesting to note that in Frankfurt they are now entering on the eighteenth year of the day continuation scheme. The schools were established in 1903. In the technical schools in Frankfurt an effort is being made to remedy weak points in applied science which were revealed in the war. It was found that the number of dentists and dental mechanics

was inadequate, and that this was a very weak point in the medical service. In this connexion I was shown a new development in practical dentistry, including a remarkably well-equipped workshop and museum. With the very low rate of exchange, the mark being now worth less than a penny, I could not understand how such expensive equipment could be obtained by the school, but it was explained that it had cost the school nothing, as the whole of the equipment had been presented by the manufacturers of dental appliances. This was further evidence, if such were necessary, of the extraordinary belief of employers in further developments in education in Germany.

The most conclusive evidence, however, of the great value of the day continuation school is afforded by the object-lesson of Strasbourg. As you know, Strasbourg has, as the result of the war, been transferred to the French after a very long period of German occupation. Day continuation schools in this centre had for some years been firmly established and incorporated in the school system. Naturally, as a result of the transference, very important changes were made in the organization of education. It might have been thought that the day continuation school, which was a foreign element, would have been swept away in the process of reorganization. The fate of this type of school was, however, never in doubt. It had so clearly proved its great value to employers and employed, and had become so popular, that no suggestion was even made for its removal from the school system. Further than this, it is stated to be more than probable that in the near future there will be a great development of this form of organization in other centres in France.

IV. THE COMPULSORY DAY TRADE CONTINUATION
SCHOOLS OF MUNICH

By R. H. BEST and C. K. OGDEN

(From “The Problem of the Continuation School and its Successful Solution in Germany,” published by P. S. King and Son, London.)

Every boy in Munich between the ages of fourteen and eighteen (or seventeen should his apprenticeship only last three years) must attend in the day time some school belonging to the continuation school system, unless he is already at one of the higher schools which prepare for the Universities and official and learned professions generally. According to his trade, he attends the special trade school instituted for members of his trade alone.

There are schools for every trade which can provide more than twenty pupils between the age limits mentioned above, smaller numbers being grouped with a kindred trade. These schools are all entirely free. Each is managed by a committee representing the trade, the municipality, and the school. About half the cost is borne by the municipality; but in other parts of Germany the State usually contributes one-third.

The boys attend for an average of about eight hours weekly, either during one whole day, or usually twice for half a day. With season trades the time is varied. The employers are obliged in every case to allow the time, and though this at first met with some opposition, everyone has long become converted by the excellent results, and the employers themselves are amongst the most enthusiastic supporters of the schools, many of them making valuable presents of machinery and materials. . . .

In every case, special school workshops are intimately united with the classrooms for theoretical instructions, as the whole of the continued education of the boys is centered on the practical work there carried out in closest connection with their actual trade.

A TYPICAL COURSE

The following time-table for brassworkers is a normal specimen :

	Age—	14-15	15-16	16-17	17-18
Trade arithmetic, bookkeeping		1	1	1	1
Business composition, essays and reading.....		1	1	1
Citizenship, sensible living and hygiene.....		1	1	1	1
Information about trades, goods and tools.....		1	1
Drawing		3	3	2	3
Practical work	2	3
		—	—	—	—
Total		7	7	7	8

The first three subjects are invariably taught in all trades, though the actual treatment is adapted to each particular trade. There is also an hour devoted to religious instruction till the end of the sixteenth year, making a total of eight hours weekly. Classes are held:

Tuesday morning	8 to 12	Afternoon, 2 to 7
Wednesday morning	7 to 12	Afternoon, 2 to 7
Thursday and Friday morning.....	8 to 12	Afternoon, 2 to 7

The four vertical columns of the time-table show the variation and apportionment during the four years of the youth's compulsory attendance, from fourteen to eighteen.

Calculating occupies one hour for four years; and Hygiene and Citizenship also occupy one hour for four years.

But all these subjects are treated so that they grow naturally out of the trade taught in the class, and in such a way that the scholar hardly notices when the teaching about trade leaves off, and when education comes in. The other subjects vary according to their respective trades.

Information about trades, goods and tools occupies one hour for two years.

In this school, Drawing—and this is mostly trade drawing—occupies three hours the first year, three the second, two the third, and three hours the fourth year.

For the first two years no practical work is done, because the scholars have already been well grounded therein in the last year of the council school, and are now, as apprentices, seriously at work with practical work in their workshops.

During the last two years they get two hours and three hours respectively of practical work—this practical work being a higher grade of work than they are likely to get in their shop.

The hours when they may attend class should also be noted. There is nothing earlier than 7 a.m., nor later than 7 p.m.

THE SUBJECTS TAUGHT

In the fifty-six trade schools, there are about one hundred and fifty teachers entirely attached to the schools, and about three hundred who give lessons there in addition to other work. The teachers are recruited from all kinds of professions and vocations. Academic and normal school-teachers coöperate with master-workmen, journeymen, artisans, and agriculturists, and they exert an excellent influence upon each other. The artisan, the master, and the journeyman learn to respect the schoolmaster, and the schoolmaster learns to respect the

workman who is engaged with him on the same educational problem. Practical instruction in workshop, laboratory, shop and garden, is the central point of every apprentice's trade school.*

Teaching in drawing and arithmetic is most intimately connected with practical instruction. Nothing is drawn that has not been made in a workshop; and every process in work or construction is followed out by figures. By making out both preliminary estimates and bills, the pupil learns the value not only of material and work, but also of the time he has spent on his work. It is particularly useful for the apprentice to recognise by these bills how much time he has spent on his work—and this, of course, is very great with apprentices, and increases the cost of production. Special care is taken in making out bills and estimates to let the pupil learn to calculate not only the cost of materials and time, but also all other items of cost, arising from the deterioration of machines and tools, the interest on capital, carriage, and various other sources of expense.

Practical instruction is also intimately connected with the study of materials, tools, and machines. The pupil makes acquaintance with these almost exclusively through his own practical work. He is specially familiarised with the mechanical laws under which machines and tools work.

Moreover, whenever the work in hand demands a knowledge of physics and chemistry, to show the pupil the reasons for what he does, or to teach him how to make new experiments with success, he receives instruction, in special laboratories, in the conception and laws required for well-considered work.

The technical education of the apprentice is never planned with a view to letting him make masterpieces. On the contrary, the endeavor is made to let him find pleasure in simple, careful, thorough, conscientious work, in genuine materials, and to encourage him to new attempts through the feeling of confidence in his own power.

Good authors are read in class, and a selection of good books from the school library, for reading at home, is placed at the pupils' disposal.

Civic instruction is generally planned as follows in the different trade schools. First, the historical development of the trade to which the pupil belongs is discussed. He is shown, in the struggles of his fellow workers, the continually growing interdependence of interests among all citizens of a community. Concrete examples of devotion to a common cause are placed before him. Thus, by degrees, he recog-

* "Three Lectures on Vocational Training," by Dr. Georg Kerschensteiner (published by the Commercial Club of Chicago).

nises how the problems arose, which occupy town and nation to-day, and learns the duties and rights of the individual within the State.

This insight is strengthened into the will to consider others, and to devote himself to common purposes, by associating pupils in working groups, especially in the last school year.

Hygienic training is given not only by special instruction in hygiene, but also by gymnastics and games on Sunday afternoons and during the school holidays; and we may take this opportunity of pointing out that the schools thus become a recognised field for the activities of all those who wish to help in the task of ennobling the life of the young in the great cities.

FINE MECHANICS, TOOL-MAKERS AND GUNSMITHS

The effect of the training in school workshops has been very beneficial to the productive capacity of the hands engaged in the trades. For instance, in the class for mechanics . . . about five years ago accurate gauges and instruments as drawing models for municipal schools were wanted; six tool manufacturers were invited to make some, but they declared that they could not undertake the work because it would be too expensive; they said their workmen were not sufficiently educated to do the work at anything like a commercial price. Three years later, however, after the boys had been educated in these classes, two of these tool manufacturers came, and said they would like to make the gauges, because they now had suitable workmen to make them at a moderate price.

We saw youths making scale balances for laboratory work (those square chemical balances enclosed in a glass case for delicate weighing). They made them throughout in the school (cases, balances, and weights). We saw them at work adjusting the weights which they had made to the delicacy of 5 milligrams; boys from fourteen to eighteen years of age made one hundred of these scale balances for their elementary schools to use in their laboratories. Purchased in a shop, they would cost £3 10s. each, while made in the school the cost was only 17s. each.

This reminds us of a Birmingham buyer of such balances who had placed a large order in Germany, and who declared that he regretted it was impossible to place the order in this country at anything like a reasonable competitive figure. . . .

BAKERS, BUTCHERS, COOKS, AND WAITERS

It is unnecessary here to describe in detail the various schools comprised in the system. . . . What one notices particularly is the cleanliness and order which are everywhere enforced. In the case of the bakers' school, for instance, or the confectioners', the value of being accustomed from the beginning to healthy conditions and hygienic methods is of the greatest value, not only to the boys themselves and to those who will afterwards learn from them but to the community as a whole.

Or take the case of the butchers, where more than in any other trade cleanliness and humanity must be wished for. Not only are even the slaughterhouses models of hygienic condition, but every effort is made to use the school as a lever for enlarging the horizon of those engaged in this, to the average man, somewhat gruesome occupation. During the year excursions were made to the Workmen's Museum, the Exhibition of Foods, a leather manufactory, a crematorium for carcases. The director of this school has, moreover, prepared a marvellous series of diagrams, describing historically and geographically the various methods of cutting up animals used for food in different parts of the world. The English visitor is surprised to learn how very much tastes differ in various countries. He finds that the parts of meat described as 'first quality,' 'second quality,' etc., are by no means the same in Germany, France, and England; a fact which the boy realises at once from the diagrams mentioned.

Cooks are thus given to understand that the complete cook must be acquainted with the tastes and methods of more than one country, and this is the case all over Germany. Thus in Berlin a young cook's apprentice of sixteen was particularly pleased to be singled out to conduct the English visitor from one class to another, for he was going to England and France as soon as he had passed his leaving examinations. "A good cook," he said, "must know something of one other country, and if possible of two. I have several friends now working in Paris and London for a year before settling down."

. . . There are 160,000 foreign waiters in London, mostly gaining experience, and many of them first attend English classes in their continuation school for this purpose. Here we may record an instance of the way in which these schools can be used as a medium for the best kind of social help. At Frankfort last year, an admirer of the work of the continuation schools put funds at the disposal of the teacher of the English classes, in order that the pupils might visit London, and many of this class may find that such an opportunity will be invaluable for their future career.

CHIMNEY SWEEPS AND STOKERS

Then again, the school for chimney sweeps, stokers, etc., is full of interest. Here is a class which might be copied with advantage not only to the sweeps, but to the community at large. It would be money well spent, for as Dr. Kerschensteiner points out to those in authority:—

“It must be remembered that modern States have placed power in the hands of the people, so that the laziest and most uncouth day labourer has an equal voice with the cultured statesman and the philosopher in the government of his country, and it must surely be worth while to educate them in matters which require a sound civic judgment.”

It is thus not a question of philanthropy, but of sound investment. The clear aim is to catch them all, those at the bottom of the labour ladder as well as those at the top, so that all shall be trained by the community into good members of the community.

[The laboratory was equipped with] . . . sections of the stoves, sections of buildings and flues, chimney cowls, the fan to pass air currents and eddies, sweeping brushes, and a collection in the cases. All go to teach us the real way of education. This kind of education adds to the amenities of life, including the amenities of ventilating and warming apparatus, flues and chimneys, smoky and otherwise. It is usual to regard chimney-sweeping as a low trade, for which there is no need to provide education. As a matter of fact, the sweep serves the community as well as the jeweller, the brass-worker or the mechanic, and has an equal right to education. The less demand a trade makes upon the mental activity and intelligence of the worker, the greater the need that the community shall supply that deficiency. If any kind of work, however lowly, is a necessity in the service of the community, upon the community lies the obligation of supplying suitable educational measures.

SHOEMAKERS

Similarly in the school for shoemakers, the idea is to make the boys proud of their calling and useful in it, not to try and educate them out of their calling into one which is supposed to be higher. We see this idea holds good in all trade classes. For the purpose of such education, their teaching in literature and history is, as far as possible, based upon the lives and writings of the celebrated men who have adorned the shoemakers' trade. On the wall hangs a small portrait, . . . which from the costume and headgear we may safely guess to be that of Hans Sachs, the cobbler poet, the greatest German poet of

the sixteenth century, a cultured man, a cobbler, of whom it is recorded, "He worked steadily at his business, and devoted his spare time to literature." It is by means of such teaching that the Munich shoemaker boys are educated to work for their guild, to take interest in higher things. . . . Dr. Kerschensteiner writes particularly about the good effects these classes are having on the workmanship of the under hands in the town.

PRINTERS

There is no occupation, certainly no skilled occupation, in the modern state which is not united by a thousand links to all other similar activities, to art and to science; and it is part of the business of the school to lay bare the complicated network of common interests, and to give each pupil at least so much general social knowledge that he clearly understands the value of the work which he is performing for the community. The difficulty of "general knowledge" has hitherto been that of finding subjects which were not selected haphazard, and not merely in the air as far as the majority of pupils are concerned. Munich by making a beginning with the centre of interest provided by the trade itself, has opened up unlimited possibilities for further extension. Both on this general social knowledge, and also on hygiene, great stress is laid in Munich,* and special value is also attached to a knowledge of the history and development of a trade. The historical method has been found particularly fruitful in the case of the more artistic trades, the work of the smith and builder, the textile and machine industries. A good instance of a trade where the historical method is of particular service in awakening general interest and intelligence is that of printing. To those who realise how little the average compositor knows or even cares about the great profession of which his work is a part, the Munich school for printers, . . . is a revelation.

The more we can introduce interesting and useful knowledge into the life of the worker, the better; at the same time, we must not forget that for the great majority of workers, at any rate for the present, the most valuable and necessary training is workshop instruction, a knowledge of good honest work under good conditions, and a good teacher. These are the all-important factors for his after-life.

In these schools for printers and lithographers we saw beautiful, delicate, and accurate work, in colour printing done in eight colours; and a process of marbling and patterning, done with a mixture of paste and colour, which we were told was a forgotten art from the

* See Kerschensteiner, "The Schools and the Nation," Chapter VII.

eighteenth century, but resuscitated in the school, and now generally used in the trade.

In the last two school years foreign languages for one hour weekly form part of the curriculum for type setters, whilst lithographers take drawing for three hours a week, practical work two hours a week, and the chemistry of the trade is also taught.

GARDENERS

A calling which at present in so far as education is concerned is greatly neglected is that of the gardener. . . . One is at once struck by the great possibilities for agricultural schools which the Munich scheme implies. But this is not an agricultural school—this is a school for the gardeners employed in the suburbs of a large city. We are too apt to think that our gardeners require education only when we find our trees have been pruned indiscriminately with a pair of shears!

HAIRDRESSERS

Another instance of a successful and much-needed school is . . . the school for hairdressers. This is a municipal school where the pupils practise on the public.

When one recollects the conditions under which an ordinary hairdresser's boy of fourteen years of age picks up his knowledge to-day it must be obvious what a great work the school has to do in supplementing his education. Here we see the lads being taught wig-making, drawing, all about their wares, first-aid surgery as part of the curriculum.

MUNICH AS A MODEL

We have only been able to give illustrations of a few out of the fifty-six trades which have schools provided for their workers, by the Munich municipality. It must always be borne in mind that the schools we have described are municipal schools; they are not controlled by individual manufacturers; and useful as the pioneer work of individual firms, or groups of employers, may be, in showing the way, no school system supported by public funds can be allowed to be monopolised by any one unit in a competitive industrial community. The qualification for municipal and State support should be that a trade is willing to support the school by sending pupils of fourteen to fifteen years of age during the day time, or quite early in the evening, and is willing to co-operate in its management. The continuation schools of Munich are the result of co-operation between municipality, State, and trade.

One of the chief reasons which encourages us to state with confidence that the system of Munich can be profitably taken as a model

for England generally, in spite of the fact that Munich is not an industrial centre in the ordinary sense of the word, is that these principles have been successfully applied to so great a variety of trades and occupations. Critics are apt to forget that not every town in England is an industrial centre. But the same principles can be applied to the welfare of every trade or calling. Their distinguishing feature is the equipment of workshops in the school building. But where the cost of workshops is at first too great, this difficulty is met, as at Dusseldorf, by starting in those trades where the equipment of workshops is less costly; or by embodying more trade drawing with such practical work as requires less costly tools; and so gradually lead up to the complete outfit. . . .

WHAT THE SYSTEM REALLY AIMS AT

The foregoing examples of trade classes or schools cannot fail to command our admiration for the completeness and thoroughness with which "Our Problem" is cared for in order to equip him in the vocation he is following.

He has now completed his eighteenth year. His compulsory education is at an end, and, if he elects to go further in it, he is well prepared to take advantage of the instruction provided in the voluntary classes connected with his school, in which a higher education for workmen is given. We have been struck with the excellence of the technical side of the organization, but let us not be carried away with any false idea that the ultimate aim, and much the most difficult part of Dr. Kerschensteiner's ideal, is being lost sight of, viz., manhood training, character training, the most important, the most valuable part of a nation's assets.

The real aim of the Munich system is:—

(1) That the youth shall be willing and fit to perform some work in life useful in the service of the community.

(2) It must help the youth on towards his calling or vocation, and it must help him to do his work as well as is possible.

(3) It must accustom him to the idea that his calling has a three-fold meaning—

(a) That it enables him to maintain himself with self-respect.

(b) That his well-being will be due to the advantage of his living in a well-ordered community.

(c) That any service for which payment is accepted, however humble it may be, is to be regarded as a service to the community, and to be conscientiously performed.

The most important ideal, presupposing as it does the requisite moral and intellectual fitness of the pupil, is that side by side with, and in fact arising out of, his work, and through his own self-cultivation, he shall feel that his own personality is helping forward the ideal of an ennobled society.

In other words, the requirements of education are:—

- (1) Training in a trade, and the preparatory training for his trade.
- (2) The ennoblement of his trade training.
- (3) The advancement of the whole community in which his trade or calling is to be exercised.

But the ennoblement of a community is impossible without first ennobling the individuals of the community; therefore the moral and ethical training of the individual must necessarily precede. It follows that our aim must be a training which shall give scope for the cultivation and practical exercise of the virtues of consideration for others, devotion, and constancy, and for the formation of an unselfish character. But nothing requires more thorough and fundamental work than just this kind of Character Training, for we are now up against the difficult barrier of the scholar's own egoism. The other more material teaching is comparatively easy.

V. SHORT LIST OF PUBLICATIONS ON PART-TIME AND CONTINUATION SCHOOLS ABROAD

- COOLEY, E. G. *Vocational Education in Europe*. The Commercial Club of Chicago, 1912. (Continuation Schools in Germany, volume 1, pages 78–129; in Austria, pages 300–305.)
- FINDLAY, J. J. *The Young Wage-Earner*. Sidgwick and Jackson, London, 1918.
- KERCHENSTEINER, Dr. GEORG. *The Schools and the Nation*. Macmillan and Co., London, 1914.
- PEARSON, PETER H. *Schools of Scandinavia, Finland and Holland*. U. S. Bureau of Education, Bulletin, 1919, No. 29. (Continuation Schools: in Norway, pages 10 and 11; in Sweden, pages 36–38; in Denmark, page 43.)
- SADLER, M. E. *Continuation Schools in England and Elsewhere*. Manchester University Press, 1907.
- SANDIFORD, PETER. *Comparative Education: Studies of the Educational Systems of Six Modern Nations*. Edited by Peter Sandiford. E. P. Dutton & Co., New York, 1918. (Continuation Schools: in Germany, pages 165–172; in England, pages 248–254; in France, pages 336–341.)
- WRAY, W. J. and FERGUSON, R. W. *A Day Continuation School at Work*. Longmans, Green & Co., 1920. (Essays by twelve contributors on the basis of personal experience in the Bournville School.)
- YEAXLEE, BASIL A. *Working Out the Fisher Act: The Human Aspect of the Continuation Schools*. Humphrey Milford, Oxford University Press, London, 1921.

UNIVERSITY OF CALIFORNIA
DIVISION OF VOCATIONAL EDUCATION
RESEARCH AND SERVICE CENTER
FOR
PART-TIME SCHOOLS

RECREATIONAL READING
FOR
PART-TIME AND CONTINUATION
SCHOOLS

BY GLADYS S. CASE AND EDITH IONE MORRISON

ISSUED BY
THE UNIVERSITY OF CALIFORNIA
IN CO-OPERATION WITH
THE STATE BOARD OF EDUCATION

BERKELEY, CALIFORNIA
MARCH, 1922

FOREWORD

Many schools are trying to equip small libraries with books which will be of interest to boys and girls in their part-time classes. After experience in selecting books for such boys and girls and after consulting with their teachers, the following brief list of books for recreational reading was made by Mrs. Gladys S. Case, Principal of the Juvenile Department of the Los Angeles Public Library, and by Miss Edith Ione Morrison, Children's Librarian, School and Teachers' Department of the same library.

Any teacher who knows and enjoys these books will be able to assist in introducing them to his pupils. The result should be more than mere recreation. "The reader and lover of the book is a safe and valuable citizen."

RECREATIONAL READING
FOR
PART-TIME AND CONTINUATION SCHOOLS

“BOOKS ARE FRIENDS. COME LET US READ.”

Adventures of Sherlock Holmes. CONAN DOYLE. (Harper)

Sherlock Holmes is probably the most famous amateur detective in literature, and with “my friend, Dr. Watson,” he unravels many a criminal plot by means of an acute observation and characteristic “deductions.”

For an atmosphere of weird gloom succeeded by horror, read “The Fall of the House of Usher” in Poe’s **Tales**.

Amazing Interlude. MARY ROBERTS RINEHART. (Doran)

An American girl, to do her bit, goes to Belgium and sets up a House of Aid just behind the lines. There she meets Henri, a brave young Belgian spy.

Another story by this author, which is called ‘the funniest book of the war,’ is **Twenty-three and a Half Hours’ Leave**.

Arabian Nights. (Jacobs)

These famous stories are like so many pearls strung upon a chain, each pearl a story, and the chain itself the reason for which the stories are told. They make us see the gorgeous world of the East, the courts of caliphs and kings, the cities of China and India, Arabia and Persia. We are left with memories to color our dream of Oriental splendor as no reading of later years can possibly do.

Boys’ Life of Mark Twain. A. B. PAINE. (Harper)

Tom Sawyer himself is in the pages of this book, for Mark Twain wrote that story out of his own boyhood. Later experiences as printer, apprentice, pilot, miner, and author are equally fascinating as told us by his friend.

To find out what the job of a genius really is, read the **Boys’ Life of Edison**, by his co-worker, Mr. MEADOWCROFT.

Boys’ Life of Theodore Roosevelt. HERMANN HAGEDORN. (Harper)

The message of Roosevelt’s life to the youth of America, is “not the doctrine of ignoble ease, but the doctrine of the strenuous life, the life of toil and effort, of labor and strife; . . . that highest form of success which comes, not to the man who desires mere easy peace, but to the man who does not shrink from danger, from hardship, or from splendid ultimate triumph.”

You are the Hope of the World, by the same author, is a challenge to the youth of America. **The Honorable Peter Stirling**, by P. L. FORD, is the story of a young lawyer who fought for clean politics.

Christopher Hibbault, Roadmaker. MARGUERITE BRYANT. (Duffield)

As a little boy he "followed the road" with his mother, an experience so vivid that in after years neither luxury nor ambition could stifle the desire of his heart, to make the way easier for the many feet that pass over the long, long roads. The story brings out the great happiness that is the reward of those who follow the high road of duty. It is also the story of a perfect love between man and woman.

The Crisis. WINSTON CHURCHILL. (Macmillan)

"This book is written of a time when feeling ran high;"—of our own Civil War, including in its characters Lincoln, Grant, and Sherman, and lovers who are divided in their allegiance.

Another angle of this dramatic period is shown in the story of **The Little Shepherd of Kingdom Come**, by JOHN FOX, JR., in which the hero is bred among settlers and hunters of the Kentucky mountains.

Daddy Long-Legs. JEAN WEBSTER. (Century)

All that the orphanage girl saw of her benefactor was the ridiculous long-legged shadow he cast as he went out the door. So while she was being educated through his generosity, Judy wrote interesting and funny letters to her unknown 'Daddy Long-Legs.'

Drusilla with a Million, by ELIZABETH COOPER, is another story of adoption: this time a poor old lady who inherits a million invests it in babies.

First Hundred Thousand. IAN HAY (BEITH). (Grosset)

"What for is the wee felly gaun' tae show us pictures?" This remark greeted the placing of landscape targets before a squad of raw recruits in Kitchener's army. So raw were they that many laughable incidents broke the monotony of their hard training.

The Four Million. O. HENRY. (Doubleday)

Within the covers of this book throbs the heart of New York City, and you feel it quicken with joy or contract with sorrow. The author is a born story-teller, and these are generally considered his best stories.

From Job to Job Around the World. A. C. B. FLETCHER. (Dodd)

The happy-go-lucky adventures of a young graduate of the University of California, who started out to see the world, equipped with a ticket to Honolulu and five dollars. He worked his way around the globe in three years, traveling steerage most of the way, and meeting his many adventures with 'the calm assurance and readiness of American boys to make themselves at home in strange places and under remarkable conditions.'

Very much the same kind of book is H. A. FRANCK'S **Vagabond Journey Around the World**.

Hall with Doors. LOUISE S. HASBROUCK. (Woman's press)

At the end of their high school year, a group of girls in a small town organized themselves into a "Vocation-Vacation Club" and proceeded to investigate various possible careers. How each girl found her vocational niche makes a story which may furnish ideas to other girls.

Hidden Treasures. J. T. SIMPSON. (Lippincott)

One of the most interesting books on farming. A boy of eighteen works as chore boy for his uncle on an old-fashioned farm. Influenced by what he has learned at Agricultural College, he persuades his uncle little by little to try out new machinery and modern methods. The banker's generosity and interest may be a trifle overdone, but the book is just brimful of possibilities, and will fascinate anyone who has ever given farming a thought.

High Benton. WILLIAM HEYLIGER. (Appleton)

"A good story for boys. If they have troubles, they will find Benton in the same fix." Over one thousand boys who had planned to leave school have written to the author saying they had changed their minds since reading this book.

High Benton, Worker, finds Steve through school and "on the job." Another book, JOSEPH GOLLOMB'S **That Year at Lincoln High** is the story of two boys, one rich, one poor, each a snob and despising the other. Miss Hunt says, "I should not like to have any American boy miss what this book has to contribute to his life."

If I Were King. J. H. MCCARTHY. (Grosset)

Story of the transformation of Francois Villon, broker of ballads, sometime bibber and brawler, into the Count of Montcorbier, grand constable of France, whose life is forfeit to the king's whim. One of the most fascinating tales ever written of wit, bravery, love, adventure.

A book depicting the romance of the court of Spain is F. M. CRAWFORD'S **In the Palace of the King**.

In the Sargasso Sea. T. A. JANVIER. (Harper)

A weird sea tale of a man aboard a derelict caught in that thick tangle of weed called the Sargasso Sea—a region into which none but dead ships came.

Jeanne d'Arc. E. M. WILMOT-BUXTON. (Stokes)

What heroine of a novel could rival the picture of Our Maid at the beginning of her mission, as "straight-backed, healthy, long of limb, she sat her great horse, tossing back her short dark hair from her brow, and gazing with bright grey eyes into the dark ways as though already she saw the end of her journey, ere it had well begun."

Kazan. J. O. CURWOOD. (Grosset)

"He was called Kazan, the Wild Dog, because he was a giant among his kind, and as fearless even as the men who drove him through the perils of a frozen world." It is the tale of a "quarter-strain wolf and three-quarter husky," torn between the call of the human and his wild mate. That God gives souls to the wild things, the author makes very plain in this story.

Another good dog story is JACK LONDON'S **Call of the Wild**; still another is ALFRED OLLIVANT'S **Bob, Son of Battle**, which tells of a famous sheep dog and a contest for the Trophy.

Kim. RUDYARD KIPLING. (Doubleday)

Steeped in the mystery of the East is this tale of Kim, white born, native bred, and wise in the ways of the bazaar where came men of all castes, Hindu, Brahmin, or pariah. The story of a boy's apprenticeship in the Secret Service of India.

Lance of Kañana. H. W. FRENCH. (Lothrop)

Kañana, a Bedouin boy, is branded even by his father as a coward because he will not slay "except it be for Allah and Arabia." How he proves faithful to his country, faithful to his principles of not taking life, and faithful to his promise that he will slay an Arabian is a wonderful story of heroic achievement.

Little Minister. J. M. BARRIE. (Dodge)

A love story romantic enough to suit most girls, although the Scotch dialect and background may make it hard to read.

Lost in the Jungle. P. B. DU CHAILLU. (Harper)

Wonderful hunting trips and adventures in equatorial Africa.

A book of adventure and exploration in South America is W. J. LA VARRE'S **Up the Mazaruni for Diamonds.**

Luck of Roaring Camp. BRET HARTE. (Houghton)

These stories have caught and perpetuated the rough, wild chivalry and freedom of the "Old West," which respected no law but its own, and from which have emerged great and heroic types.

The scene of the **King of the Broncos**, by C. F. LUMMIS, is laid in the Southwest; and **Gold**, by S. E. WHITE, tells of California in the early days.

Making of an American. JACOB RIIS. (Macmillan)

This young Dane came to America to make his way. He never forgot the dreadful poverty and wretchedness of his early days. This is his own account of how he won out for himself and others. A pretty love story runs through it all.

EDWARD BOK is another boy who came to America from across the sea. How he found it the land of infinite opportunity, he tells in the **Americanization of Edward Bok.**

Mrs. Wiggs of the Cabbage Patch. Mrs. ALICE HEGAN RICE. (Century)

Humor of a true American flavor may be found in this sprightly story of the ups and downs of life in the cross-tracks Cabbage Patch, with its flapping clothes-lines, browsing goats, and patched window-panes—and Mrs. Wiggs.

Mother. Mrs KATHLEEN NORRIS. (Grosset)

"It is given to few, who as the years go on feel increasing love for a mother or father long dead, to express that love in a tribute so perfect as 'Mother.' "—*Ida Tarbell.*

"Mother" is a picture of wholesome family life today. Another book, **My Mother and I**, by ELIZABETH G. STERN, is an exquisite story of the love between an Americanized immigrant girl and her old-fashioned mother.

The Mutineers. C. B. HAWES. (Atlantic monthly press)

A hundred thousand dollars in gold, a mutinous crew, pikes, cutlasses, and guns! A more-fascinating treasure story of danger and adventure in pirate-infested seas could not be found.

Nobody's Boy. H. H. MALOT. (Cupples)

Pronounced by old and young of France and America as one of the most engrossing and humanly interesting stories to be found within the covers of a book. Remi, the foundling French boy, earns his living as a wandering minstrel.

Perfect Tribute. M. R. S. ANDREWS. (Scribner)

The silence which greeted his Gettysburg speech cut deep into the heart of the great man who believed he had failed his people. How at last the realization of the truth came to Lincoln, is a story of rare beauty. A recent play, "Abraham Lincoln" by DRINKWATER, shows "Lincoln's wonderful insight, his quick mind, his unflinching honesty, his humanity, his power to stand alone."

Prince and the Pauper. SAMUEL CLEMENS. (Harper)

A prince and a beggar-boy changed places, and what befell each in his new estate worked to the good of all England. In after years the prince, then king, when questioned concerning an act of mercy, would reply, "What dost thou know of suffering and oppression? I and my people know, but not thou!"

A tale of an older England, full of tourney and jousting, where "might made right," is SCOTT's **Ivanhoe**.

Ramona. HELEN HUNT JACKSON. (Little)

Story of a noble and romantic love, with an early California background which shows the terrible injustice and intolerance of our own people toward the Indians and the Spaniards.

Rilla of Ingleside. LUCY M. MONTGOMERY. (Stokes)

Life in Glen St. Mary, Canada, during the first year of the war, centered around Rilla—youngest daughter of Anne. How she won and lost her war baby, managed the "Junior Red's" and sent her brothers, playmates, and sweetheart away with a smile, is told in a picture so vivid and so true to life, it leaves an unforgettable impression of having lived every incident yourself.

Madonna-like in her patience and womanliness is the heroine of **Maria Chapdelaine**, by LOUIS HÉMON, a beautiful love story of French Canada.

Roast Beef, Medium. EDNA FERBER. (Stokes)

Being the business adventures of Emma McChesney, flavored with her own particular brand of humor.

For shrewd common sense in business dealing, read G. H. LORIMER'S **Letters of a Self-made Merchant to His Son**, which also is brimful of humor.

Singing Heart. F. J. WARD. (McCann)

This is the love story of the plain, "stay-at-home" member of a talented family. The McAllister clan is breezy and clever, but slow to discern the charm of their younger sister. Their reverence for the memory of their mother is beautiful to see.

Son of the Middle Border. HAMLIN GARLAND. (Macmillan)

Said Howells, "Garland makes us live the farm life of the middle border as he lived it, and not only its squalor and ugliness and misery but also the wild glory and beauty of it, which we feel as he felt it."

ELEANOR GATES' **Biography of a Prairie Girl** paints a vivid picture of the struggle of those early days as lived by "Little Girl" and her big brothers, born and bred on a lonely Montana homestead.

In the **Letters of a Woman Homesteader**, by ELINORE STEWART, is revealed the courage of a woman who was not afraid of "coyotes and work and loneliness," and who also knew how to laugh.

T. Tembarom. FRANCES H. BURNETT. (Century)

When T. Hembarom became the possessor of a hall bedroom in a third-rate New York boarding house it seemed like luxury to him, after his nights spent in empty trunks and behind lumber piles. He learns one day that he is Temple Barholm, heir to an old English estate, with an income of £70,000 a year; and goes to England to take possession.

Tale of Two Cities. CHARLES DICKENS.

No one who has read this story of the Reign of Terror in France will ever forget the picture of the woman sitting day after day, knitting, watching, counting, as one after another the heads of the nobles fall under the guillotine. Neither will one forget the portrayal of the noble-hearted castaway, Sidney Carton, lover and hero.

A Tenderfoot with Peary. GEORGE BORUP. (Stokes)

"You may recall that sweep of savage splendor,
That land that measures each man at his worth,
And feel in memory half fierce, half tender,
The brotherhood of men that know the north."—*Service*.

Two other tales of the North are **Alaska Days with John Muir** (by S. H. YOUNG), and **Stickeen** (by JOHN MUIR). The latter is the story of the dog who shared with Muir one of his most terrible experiences in mountain climbing.

Three Musketeers. ALEXANDRE DUMAS. (Dodd)

Famous for all time are the bravery and wit of the four inseparables, Athos, Porthos, Aramis, and the clever Gascon D'Artagnan; and their thrilling adventures in the service of the Queen.

Monsieur Beaucaire, by BOOTH TARKINGTON, is a sparkling bit of comedy, which centers around a gallant young Frenchman, of whom little is known, and Lady Mary Carlisle, the beauty of Bath, the victim of her own pride.

Tillie, a Mennonite Maid. HELEN R. MARTIN. (Grosset)

Tillie's father was a frugal, honest, prosperous Pennsylvania Dutch farmer, who believed that work was the whole duty of life. Tillie rebelled against the intolerance and narrowness of ignorance, and with true Dutch stubbornness and courage persisted in her fight for "schooling."

To Have and to Hold. MARY JOHNSTON. (Grosset)

A beautiful maid-of-honor, ward of the King, avoids marrying the King's favorite by fleeing to Virginia with a cargo of brides sent out by the Company in exchange for tobacco.

Track's End. HAYDEN CARRUTH. (Harper)

How Judson Pitcher, an untried youth of eighteen, spent a winter in a deserted frontier town with only a dog and a cat for companions, and defended it singlehanded against outlaws, wolves, and bands of thieving Indians.

Another adventure story tells of a search for lost Spanish treasure among the cliff-dwellers. This is J. A. ALTSHELER'S **Apache Gold**.

Twenty Thousand Leagues under the Sea. JULES VERNE. (Grosset)

A voyage with Captain Nemo in his marvellous underseas boat, fifty years before the submarine became a fact.

On the first page of **Mysterious Island**, Captain Nemo and his party in an army observation balloon are sinking rapidly into the sea, out of sight of land.

Up from Slavery. B. T. WASHINGTON. (Houghton)

That success is measured not by achievement but by how much has been overcome, is brought out in this record of the struggle of a colored boy to rise above the stigma of slavery. He made for himself a place with the great spirits of the world, as a leader and server of his people.

The Virginian. OWEN WISTER. (Grosset)

This best of Western stories has a school-ma'am heroine and a cowboy hero. A tale of modern chivalry.

Another picture of virile outdoor manhood is RALPH CONNOR'S **The Man from Glengarry**, the setting for which is a northern lumber camp.

Wild Animals I Have Known. E. T. SETON. (Scribner)

Dramatic histories of Lobo, King of the Wolves; Raggybug, the cotton-tail rabbit; Vixen, brave mother-fox; and others of their kin. More than one boy has worn to pieces a copy of this book.

Winning of Barbara Worth. H. B. WRIGHT. (Burt)

As the sterile desert floor of the Imperial Valley responded to nurture and life-giving water, and became beautiful, doing its part of the world's work—so the heart of the foundling girl grew and blossomed out into rich womanhood blessed by a noble love.

OTHER LISTS OF BOOKS

1. *Boys' Books*. Public Library of Newark, New Jersey. 1920.
2. *Books for Boys and Girls: a Selected List*. Hewins. American Library Association Publishing Board. 1915.
3. *List of Books for Girls in Their Teens* and *List of Books for a Boy's Reading*. Children's Department, Carnegie Library of Pittsburgh.
4. *Books for High Schools*. Wilson. American Library Association Publishing Board, 78 East Washington St., Chicago, Ill. 1914. 50 cents.
5. *100 Books That will Interest Girls* and *100 Books That will Interest Boys*. Milwaukee Public Library.
6. *Reading List—Junior High School* and *Reading List—Senior High School*. Iowa Library Commission, Des Moines, Iowa. 1921.
7. *Selected List of Books for Boys and Girls of High School Age*. Carnegie Library School, Carnegie Institute, Pittsburgh, Pa. June, 1919.

LIST OF PUBLICATIONS
OF THE
DIVISION OF VOCATIONAL EDUCATION
UNIVERSITY OF CALIFORNIA

PART-TIME EDUCATION SERIES

- Bulletin No. 1. Syllabus of an Introductory Course on Part-time Education. January, 1920. (Out of print.)
- Lesson Plans and Reports for use in connection with the Introductory Course on Part-time Education. (Out of print.)
- Leaflet No. 1. A First Reading List for Administrators and Teachers in Part-time Schools. August, 1920. (Out of print.)
- Leaflet No. 2. The Work of Coördination in Part-time Education. November, 1920. (Out of print.)
- Bulletin No. 2. An Analysis of Department Store Occupations for Juniors. December, 1920.
- Bulletin No. 3. Coördination in Part-time Education. March, 1921. (A revision of Leaflet No. 2.)
- Bulletin No. 4. An Analysis of the Work of Juniors in Banks. May, 1921.
- Bulletin No. 5. An Analysis of Clerical Positions for Juniors in Railway Transportation. August, 1921.
- Leaflet No. 3. Selected Reading List for Administrators and Teachers in Part-time Schools. September, 1921.
- Bulletin No. 6. Part-time and Continuation Schools Abroad—Reprints. November, 1921.
- Bulletin No. 7. The Work of Juniors in the Telegraph Service. March, 1922.
- Leaflet No. 4. Recreational Reading for Part-time and Continuation Schools. March, 1922.

-
- Part-time News Notes No. 1. Three Months of Coördination in the Oakland Schools. November, 1920. (Out of print.)
- Part-time News Notes No. 2. Progress in Part-time Education in Los Angeles. December, 1920. (Out of print.)
- Part-time News Notes No. 3. The Work of the Director of Part-time Education. January, 1921.
- Part-time News Notes No. 4. The Application Blank for Enrollment in Part-time Schools: A Statistical Study. April, 1921. (Out of print.)
- Part-time News Notes No. 5. Junior Employees in the Retail Drug Business. May, 1921. (Out of print.)
- Part-time News Notes No. 6. Outline Course in Citizenship Training for Part-time Schools. September, 1921. (Out of print.)
- Part-time News Notes No. 7. Items from Part-time Schools in California. March, 1922.

AGRICULTURAL EDUCATION SERIES

- Bibliography of Agricultural Reference Books. March, 1920.
- Smith-Hughes Courses in English for Classes in Agriculture.
- Rural Social Survey Outline. August, 1920.
- Farm Mathematics Outline. August, 1920.
- Second Year—Farm Mathematics Outline. August, 1920.
- Bush Fruits Project Study Outline. March, 1920.
- Grape Project Study Outline. May, 1920.
- Poultry Project Study Outline. June, 1920.
- Swine Project Study Outline. June, 1920.
- Suggestions for Farm Mechanics Work in Vocational Agriculture. November, 1920.
- Suggestive List of Illustrative Material for Teachers of Vocational Agriculture. December, 1920.
- Dairy Project Study Outline with Suggestive Exercises. January, 1921.
- Suggestive Exercises in Fertilizer. March, 1921.
- Apricot Project Study Outline with Suggestive Exercises. March, 1921.
- Suggestive Exercises in Poultry Husbandry. April, 1921.
- Suggestive Exercises in Soils and Plant Life. April, 1921.
- Suggestive Exercises in Irrigation. April, 1921.
- Suggestive Exercises in Vegetable Growing. April, 1921.
- Suggestive Exercises in Swine Production. May, 1921.
- Sheep Project Study Outline. June, 1921.
- Baby Beef Production Project Outline. June, 1921.
- Alfalfa Culture Project Outline. June, 1921.
- Field Bean Culture Project Outline. October, 1921.
- Revised Bibliography. January, 1922.
- Agriculture News Letter (Monthly).

UNIVERSITY OF CALIFORNIA
DIVISION OF VOCATIONAL EDUCATION
RESEARCH AND SERVICE CENTER

THE WORK OF JUNIORS IN THE
TELEGRAPH SERVICE

BY
RALPH EDWARD BERRY

ISSUED BY
THE UNIVERSITY OF CALIFORNIA
IN CO-OPERATION WITH
THE STATE BOARD OF EDUCATION

BERKELEY, CALIFORNIA
APRIL, 1922

FOREWORD

This is the fourth of a series of studies of junior positions in commercial occupations, made by the Research and Service Center of the Division of Vocational Education. This analysis deals with junior positions in local and division telegraph offices and is confined to jobs in the Commercial and Traffic Departments.

The material is published particularly as a source of information for teachers of part-time and evening-school pupils employed in this field. It is hoped that it will also be useful to telegraph companies in training their employees, and to teachers and others as a guide in making similar studies in the fields in which young workers who come under the Part-time Act are engaged.

The preliminary survey of the field was made by Mr. F. W. Boettler, Training Officer with the U. S. Veterans' Bureau, and the complete and intensive study was made by Mr. R. E. Berry, Associate Professor of Commerce in the University of Wyoming, on leave of absence. The study was directed and edited by Miss Emily G. Palmer, Special Agent for the Training of Part-time Teachers, University of California.

ROBERT J. LEONARD,

Director, Division of Vocational Education, University of California.

ACKNOWLEDGMENT

The Research and Service Center of the Division of Vocational Education wishes to express its appreciation of the whole-hearted coöperation and assistance of the officials of the Western Union Telegraph Company in making this study of the organization and functions of a telegraph company and of the work of its younger employees.

We feel especially fortunate in having had the opportunity to study the work in the Traffic Department in the division offices in San Francisco, since this Traffic Department is one of the largest in the United States and is considered the most modern in the world.

CONTENTS

	PAGE
List of Diagrams.....	4
List of Illustrations.....	4

PART ONE

INTRODUCTION

The Invention and Development of the Telegraph	5
The Multiplex System.....	7
The Organization of a Telegraph Company.....	10
The Commercial Department.....	10
The Traffic Department.....	12
The Plant Department.....	17
The Auditing Department.....	17
Employment Conditions in a Telegraph Company.....	18
The Purpose and Scope of the Study.....	19
Obtaining and Organizing the Material.....	20
Determining the Knowledge and Skill Required.....	20
Organizing the Analyses	21
Organizing the Background Material.....	21

PART TWO

ANALYSES OF POSITIONS

The Receipt and Delivery of Messages	23
Messenger.....	25
*General Facts Concerning the Job.....	25
*Duties.....	25
*Required Knowledge.....	31
*Promotional Possibilities.....	38
Receiving Clerk.....	39
Tube and Copy Clerk.....	57
Call Circuit Clerk.....	60
Collect Register Clerk	63
Delivery Route Clerk.....	66
Mail Bureau Clerk.....	74
The Transmission of Messages.....	76
Tube Attendant.....	79
Route Clerk.....	83
Route Aid.. ..	86
Distributor.....	88
Automatic Operator.....	90
Sequence Clerk.....	92
File Clerk.. ..	96
Searcher File Clerk.....	99
File and Copy Clerk.....	101
Telephone Recorder.....	104
Morse Operator.....	109
Route Supervisor.....	111
Service Clerk.....	112
Statistical Clerk.....	115
Claim Clerk.....	117
Timekeeper.....	119

*Each of the following positions is analyzed under these four headings.

PART THREE

SUGGESTIVE INSTRUCTIONAL MATERIAL

	PAGE
Background Topics.....	121
Telegraphy.....	121
Other Methods of Message Transmission.....	121
The Telegraph Service.....	123
Economic Importance of the Telegraph.....	123
The Telegraph Company.....	123
Legal Status of the Telegraph Company.....	123
Regulation of Telegraph Companies.....	124
History of the Western Union.....	124
History of Other Telegraph Companies.....	124
The Telegraph in Business.....	124
The State Industrial Welfare Commission.....	124
The State Industrial Accident Commission.....	125
Anecdotes of the Service.....	125
Corporations.....	126
Statistics.....	126
Filing Systems.....	126
Elementary Business Law.....	127
Bookkeeping and Accounting.....	127
Geography.....	128
English.....	128
The Employee's Responsibilities.....	128
The Telegraph Company's Responsibilities.....	130
Books and Magazines Dealing with Telegraphy.....	130
Vocabulary of Terms Used in the Telegraph Business.....	136
Suggested Lessons for Messengers.....	137
Occupational Background Group.....	137
Efficiency and Promotion Group.....	155
Citizenship Group.....	169
Safety, Health, and Hygiene Group.....	175

LIST OF DIAGRAMS

Organization Diagram—Commercial Department.....	9
Organization Diagram—Branch Office.....	11
Organization Diagram—Traffic Department.....	13
Organization Diagram—Delivery Department.....	24
National Organization Diagram—Telegraph Company.....	122
Classes of Domestic Messages.....	134

LIST OF ILLUSTRATIONS

Automatic Set.....	6
Section of Automatic Tape.....	7
Multiplex Distributor.....	77
Central Distributing Center, Western Union Office, San Francisco.....	82

PART ONE

INTRODUCTION

THE INVENTION AND DEVELOPMENT OF THE TELEGRAPH

In the year 1837 S. F. B. Morse devised a telegraph in which an armature by an electromagnet was made to mark a dot or a dash upon a moving strip of paper. Electric telegraphy was not, however, in successful operation until the year 1844, when the first line was installed between Washington and Baltimore. From the time this line was established and the practicability of telegraphic communication demonstrated, the telegraph business has expanded steadily, along with other means for the transmission of messages by the use of electricity, until today the Western Union Telegraph Company, alone, has more than twenty-five thousand offices in operation in the United States. Every civilized country is covered with a network of telegraph wires and each continent is linked directly or indirectly with every other continent by telegraph or cable. Although the telephone is today of first importance in short distance, house-to-house communication, and although the wireless telephone is being perfected and the radiotelegraph transmits messages many thousands of miles, nevertheless, the telegraph remains supreme as the most widely used and most economical means of long distance message transmission by electricity. In the United States the Western Union Telegraph Company claims about eighty-five per cent of all the telegraph business, the only other company handling any considerable amount of country-wide telegraph business being the Postal Telegraph Company.

One can scarcely conceive of our great railroad systems operating without the aid of the telegraph. A bank without its daily, and in many cases hourly, telegraphic reports of market and stock exchange fluctuations would be at a loss indeed as to the proper course to pursue in the matter of loans and discounts. And business in general, were it forced for a week to dispense with the aid of the telegraph would find itself in a state of paralyzed uncertainty. In short, the telegraph is a public necessity, vital to the commercial, economic, industrial, and social welfare of the country, and used daily for the transmission of many thousands of messages.



AUTOMATIC SET—THE MESSAGE IS TRANSLATED INTO PERFORATIONS ON A TAPE

The multiplex or automatic system.—Besides the Morse system of telegraphy, operated by key and sounder, with which everyone is more or less familiar, there has been developed in recent years the Multiplex, or, as it is frequently called, the Automatic System of Printing Telegraphy. It was developed expressly for the purpose of handling a larger volume of telegraph traffic than is possible with the Morse system, and doing it with greater dispatch and accuracy.

Multiplex operating is effected by means of a sending instrument (a perforator), a transmitter, rotating sending-and-receiving distributors with repeating relays, and a receiving instrument (a printer). All of these are electrically operated. A cut showing the sending instrument (perforator), the transmitter, and the receiving instrument (printer) is shown on page 6. Beginning at the right, the operator may be seen striking the keys of the perforator. The tape which is perforated passes through the transmitter and into a container through a slot in the table. The third instrument, which is the one on the left hand side, is the receiving instrument, or printer, and belongs in the distant city to which the message is being sent.

When sending a telegram the operator typewrites it on a perforator. As the keys of this sending instrument are struck by the typist they punch holes in a narrow moving paper tape. Each letter of the alphabet, as well as figures and other characters, is represented by a separate combination of from one to five small circular perforations in the tape. For example, when the letter "A" is struck, perforations are made at positions one and two on the tape (three, four and five remaining blank). Striking the letter "R" perforates two and four (one, three, and five remaining blank). Striking the letter "E" perforates one (two, three, four, and five remaining blank).

Small metal fingers pass through the perforations in the tape, permitting negative impulses to pass to the wire from a given channel. Blanks prevent these fingers from coming through and allow only positive impulses to be sent to the wire. The five pulses or perforations referred to are known as the "five-unit" code. It is apparent that when either negative or positive electricity is applied at will to any of them, thirty-one combinations are possible, providing for the twenty-six letters of the alphabet, plus five other characters which are found on any ordinary typewriter. A cut, showing a section of automatic tape will be found below. The middle line of small holes feeds the tape through the transmitter.

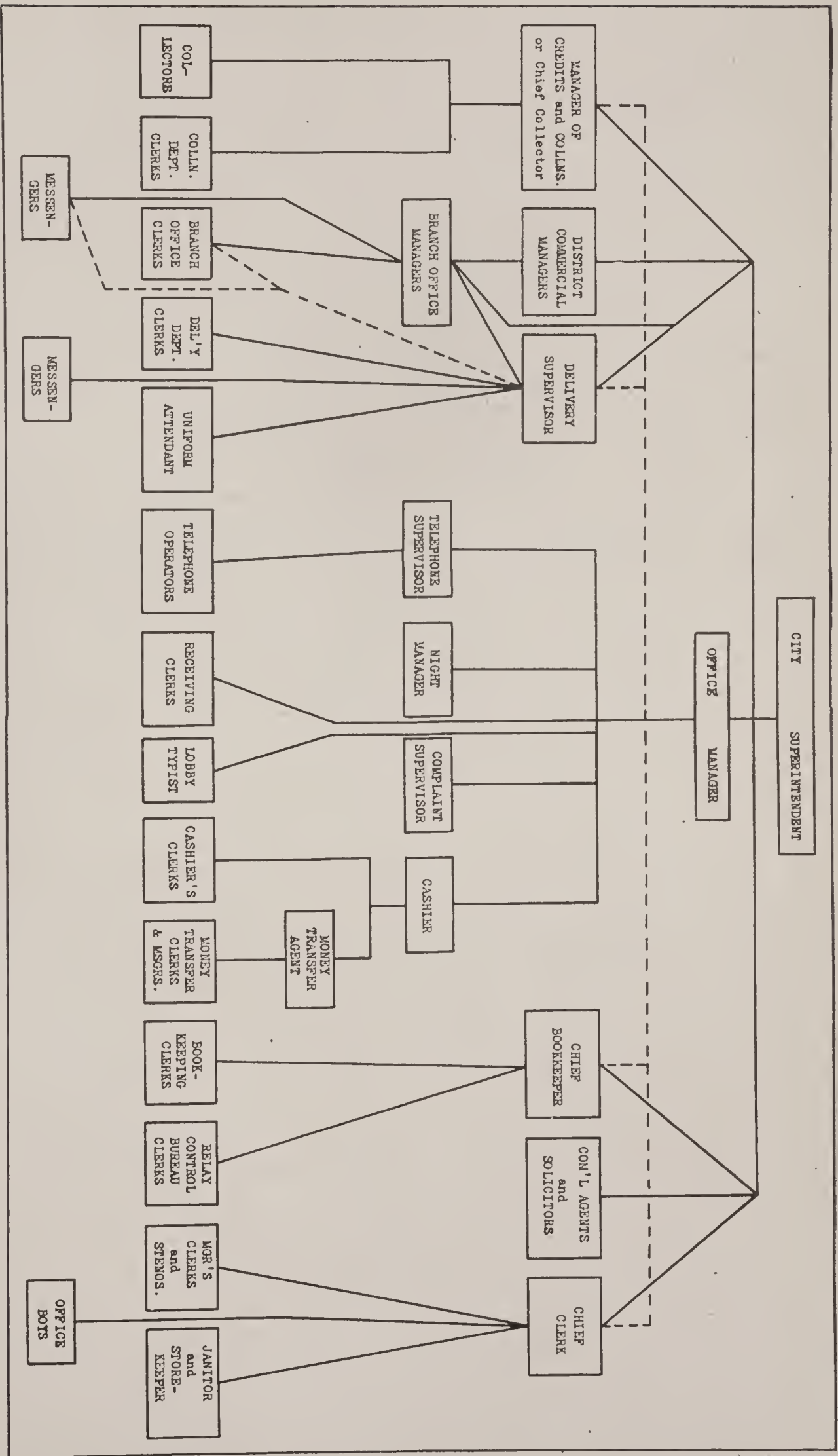
As the perforations are made in the moving tape, impulses are transmitted to the line through a sending distributor. At the distant office they come to the receiving distributor and are passed thence to the receiving typewriter (the printer). As the type-wheel in the receiving typewriter receives each impulse it turns the face of the selected letter toward the message blank and strikes the letter. The receiving operator watches the message as it is being printed. When it is finished the operator tears off the blank with the message printed on it ready for delivery, and another blank is then in place for receiving the next message.

Through the operation of the sending and receiving distributors, eight messages, four in each direction, may be sent over a circuit at the same time. Each sending and receiving distributor is a disc divided into four quadrants. A sending machine at one end and a receiving machine at the other operate through each quadrant. Each quadrant is divided into five segments, to which the five previously mentioned positions on the moving tape correspond. A cut showing the distributors is shown on page 77. The segmented face of the discs can be seen on both distributors.

The impulses started by each of the four sending instruments pass to the proper quadrant and segment on the sending distributor. Distributing brushes pick up the impulses from these segments in rapid succession and record one letter on each of the four receiving printers in one revolution. The receiving distributor through which this is effected, and the sending distributor, are perfectly synchronized by means of tuning forks and a corrector device so that their brushes pass over the corresponding quadrants and segments at the same instant. It will be observed that four sending and four receiving machines may be hitched to each end of a wire connecting two cities, and from two to eight messages, depending upon traffic requirements, passed over the wire simultaneously.

By means of an automatic control device the sending and receiving operators can instantly communicate with each other, should it become necessary during the transmission of a message. In case of necessity, an automatic circuit may be converted into a manual or Morse circuit simply by turning a switch.

At the present time all of the large and many of the smaller Western Union offices, and also the cable offices, are connected directly by multiplex circuits. Additional multiplex installations are being made wherever traffic loads warrant.



ORGANIZATION DIAGRAM—COMMERCIAL DEPARTMENT

The night manager's jurisdiction embraces a combination of the day positions of Delivery Supervisor and Assistant Manager during the evening hours.

The Telephone Bureau is often a part of the Traffic Department.

The Bookkeeping Bureau is often a part of the Auditing Department, especially in division offices.

THE ORGANIZATION OF A TELEGRAPH COMPANY

From the administrative standpoint the work of a great telegraph system, such as the Western Union, requires an effective organization. For purposes of administration the country is divided into a number of divisions. Each division is subdivided into districts, and each district into as many local subdivisions as may be necessary. Each division has its own separate administrative organization which carries on the business of the company in the territory included in the division. At regular intervals the divisional organizations render an accounting to the central administrative or home office of the company. Traveling auditors and other officials from the home office keep in close touch with the work in the various divisions.

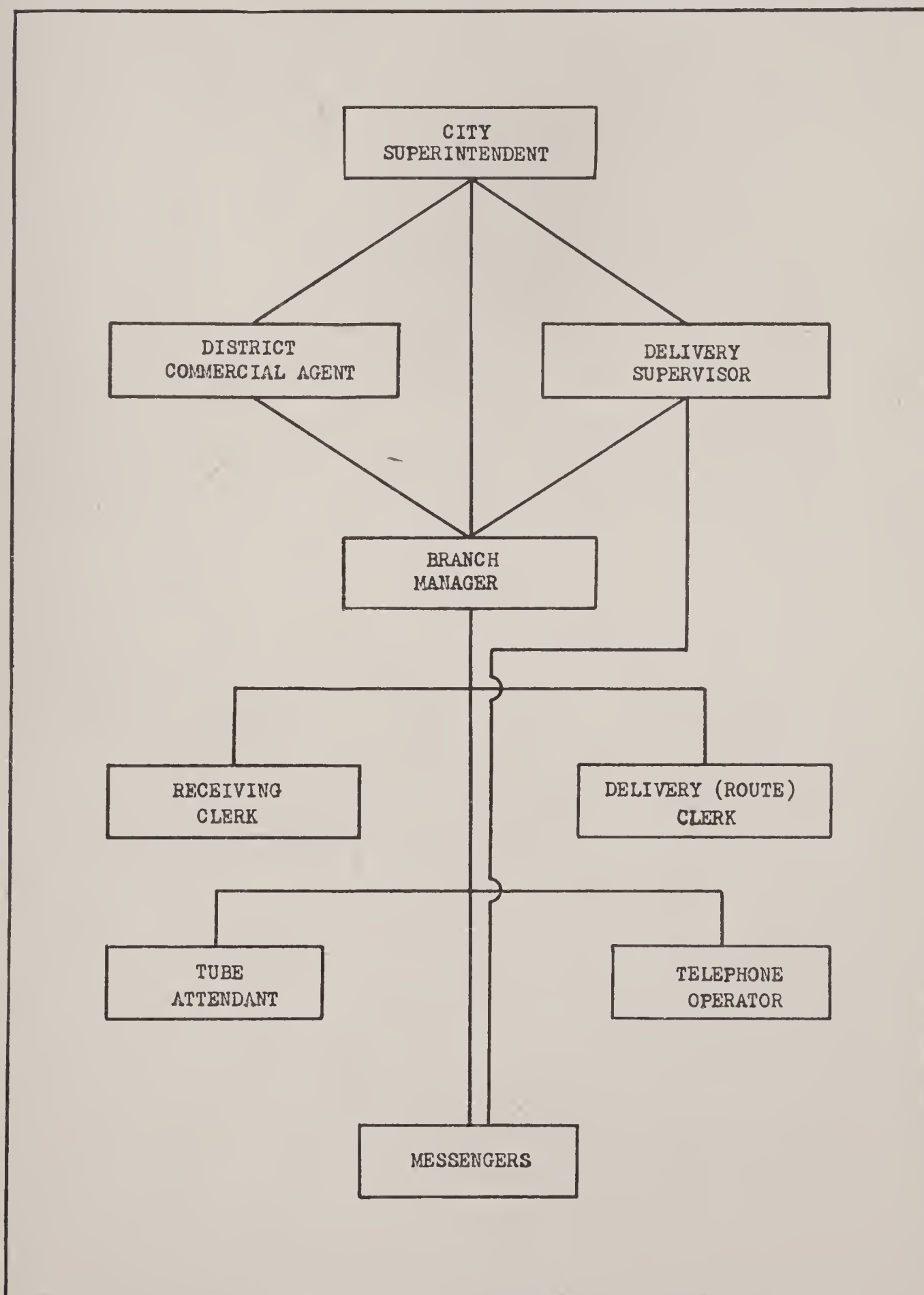
The work of a telegraph company is carried on by four departments, each having distinct and important functions to perform. The heads of these departments report directly to their respective department heads in the home office. In addition, there is a superintendent for each large city in the division, who reports directly to the Division General Manager and is responsible to him for the work of the commercial department in his city. These departments are the Commercial Department, the Traffic Department, the Plant Department, and the Auditing Department. A chart showing the national organization of the Western Union Telegraph Company will be found on page 122.

The Commercial Department.—This department is the direct representative of the telegraph company in its relations with the public. It may be described as the outside rim of the organization. It makes all the contracts with the public, receiving and delivering messages, establishing new and improving old offices, dealing with complaints and providing the stimulus for service improvements, anticipating the large and small needs of the public, and providing the necessary facilities and service.

The two chief functions of the Commercial Department are receiving and delivering messages. When the volume of business is large the delivery of messages often requires a separate organization under a delivery supervisor, and in large cities a branch office organization.

Besides the two functions mentioned above, the Commercial Department has many others to perform. The money transfer service, by which money is transferred by telegraph and cable to points in the United States and in foreign countries, is a part of the work of the Commercial Department. When a firm wishes to send packages to a large number of addresses located in the same town or city, it may ship the packages in bulk to the telegraph office, and by arrange-

ment with the Commercial Department, these packages will be delivered by messengers to the individual addressees. The commercial news service is arranged for, by individuals or firms through contract with the Commercial Department. This service is provided by the telegraph company to furnish market quotations and reports, sport-



ORGANIZATION DIAGRAM—BRANCH OFFICE

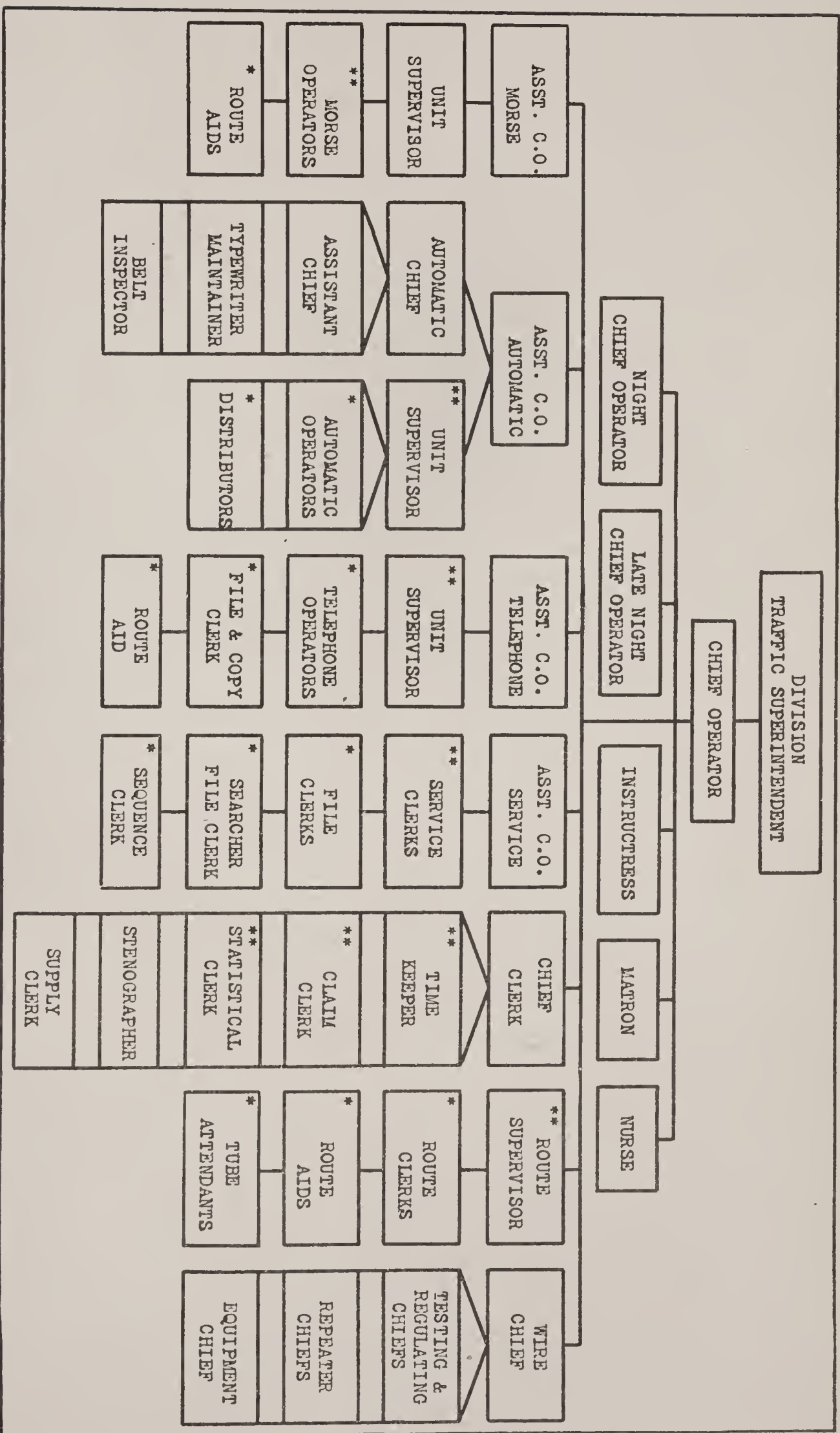
Note: In small branch offices the organization will often consist simply of a branch manager and a messenger.

ing and other news by messenger, private wire, or ticker, daily or hourly, on one or any number of commodities. The time service is also in charge of the Commercial Department. The chief evidence of this service is the electrically regulated clock found in so many business houses and public places. Through an arrangement with the Self-Winding Clock Company, clocks are furnished on a monthly rental basis by the Western Union Telegraph Company and are corrected hourly by master clocks in Western Union offices. Such clocks are also used to ring bells in schools, blow factory whistles, flash signal lights, etc. In short, every service which a telegraph company renders is secured through the Commercial Department. On page 9 will be found a chart showing the organization of the Commercial Department of the Western Union Telegraph Company.

The Traffic Department.—It is the business of the Traffic Department to receive and transmit messages over the wires, to test and regulate inside wires and apparatus, to attend to the clerical and statistical work of the department, and to give new operators the necessary training. For the performance of these functions, the Traffic Department, under the supervision of a chief operator, is divided into a number of sections or smaller departments, each having certain definite duties to discharge.

The actual transmission of messages is attended to by the Operating Bureau. There are two sections in this bureau in large main and division offices. One section attends to the transmission of messages over the Morse or manual circuits, and the other to the transmission of messages over the automatic circuits. Each of these sections of the Operating Bureau is under the direct supervision of an assistant chief operator. Under the assistant chief operators there are several unit supervisors, who are in charge of the operators serving various circuits.

The Central Distributing Center for the Traffic Department is under the direction of a route supervisor. Messages for transmission, received at the main office and at branch offices, are sent to the Central Distributing Center through the pneumatic tubes. Here a tube attendant removes the messages from the carriers and sends them on a belt to the route clerks. The route clerks examine the messages, note their destination, mark the routing upon them, and place them upon the proper belt for distribution to the sending operators. Route distributors and route aids receive the messages as they drop from the belts, and take them to the proper Morse or automatic sending operators, as indicated by the initials or numbers placed on them by the route clerks.



Note: Positions marked with one star (*) are open to juniors. Positions marked with two stars (**) are those to which juniors may be promoted. The abbreviation C. O. stands for Chief Operator.

Messages for local delivery are placed immediately upon the belts by the receiving operators. The belts carry the messages to the Central Distributing Center. Here the route clerks remove the messages from the belt, note the name, address, and the character of the message, and mark the routing in pencil. Messages which are to be telephoned out are passed on the belt to the directory clerk who looks up the telephone numbers in the directory, notes them upon the messages, and places the messages upon a belt which carries them to the Telephone Bureau. The other messages are passed on the belt to a tube attendant who sends them through the tubes to the branch offices, to the Delivery Department of the main office, or to the offices of officials of the company, as indicated by the penciled instructions of the route clerks.

The telephone is an important adjunct to the telegraph. Under the supervision of an assistant chief operator, the Telephone Bureau of large main or division offices handles commercial traffic between the branch offices and the main office. The Telephone Bureau also receives messages from customers and makes telephonic delivery of messages to them. In the telephonic transmission of messages between the branch offices and the main office, the operators must follow a prescribed routine, using this list of guard words to minimize the possibility of error:

A like Adams	N like Newark
B “ Boston	O “ Ocean
C “ Chicago	P “ Peter
D “ Denver	Q “ Queen
E “ Edward	R “ Robert
F “ Frank	S “ Sugar
G “ George	T “ Texas
H “ Henry	U “ Union
I “ Ida	V “ Violet
J “ John	W “ Western
K “ King	X “ X-ray
L “ Lincoln	Y “ Yale
M “ Mary	Z “ Zero
Initial (said before initials)	Number (said before numbers)

The Telephone Bureau also has several private branch exchange operators, whose duty it is to make connections for private branch exchanges.

The following outline shows the organization of a typical Telephone Bureau of a large main telegraph office.

Public Operators:

Receiving messages from the public.

Delivering messages to the public.

Branch Operators (Receiving and delivering):

Intra-office operators (city branches).

Way circuit operators (to nearby small towns).

Trunk circuit operators (to nearby large towns).

Private Branch Exchange Operators:

Making connections for private branch exchanges.

In smaller offices, where the volume of work is not sufficient to warrant such a complete organization, all of the telephone work may be performed by one or two operators. In practically every telegraph office, no matter how small, there will be found a telephone for use in sending and receiving telegrams.

The testing and regulating work in the Traffic Department is performed by a corps of experts under the direction of a wire chief. It is the duty of these men to see that all circuits, wires, belts, and interior equipment are kept in order night and day for the proper sending and receiving of messages.

The organization described above for the work during the day is duplicated on a smaller scale for the night work and late night work. The night chief operator and the late-night chief operator report directly to the chief operator.

The Service Bureau is under the supervision of an assistant chief operator. To this bureau come daily many requests for information regarding errors, inaccuracies, or misunderstandings about telegrams. Such requests come from local recipients of telegrams, from distant telegraph offices, and from other departments in the local office. The Service Bureau also sends out for the local office an equally large number of requests for information or instructions to distant offices because some word in a telegram is not clear, because the address is inaccurate or incomplete, because the addressee could not be found, because tolls were refused on a collect message, etc. To expedite the work of sending and answering queries, copies of all telegrams are filed in the Service Bureau for a period of forty-eight hours before being sent to the Bookkeeping Bureau for permanent filing.

Copies of all telegrams received for local delivery are filed alphabetically according to the name of the addressee. Telegrams sent from the local office to other points are filed alphabetically under the name of the state of destination. Messages for New York and a few other large offices are filed in a separate cabinet, each class of message being kept in a separate compartment. The work of the Service Bureau must be performed with all possible dispatch. A careful check is kept on the work of the Service Bureau to see that each service is performed within the allotted time. In order that the work of the Service Bureau may be performed as expeditiously and as economically as possible, telegraphic requests for information and advice prepared by the bureau are written, as far as possible, in a simple code by using abbreviations agreed upon for service messages. An alphabetized list of the abbreviations used in service messages follows:

ADS	Address	GNTTEE-D	Guarantee-d
ADSD	Addressed	MK	Make
ANS	Answer	HW	Herewith
Black	Day Message	HA	Hurry Answer
Blue	Day Letter	MSG	Message
CAK	Contract Message	NH	Not at Home
CDC	Central Distributing Center	NITE	Night Message
CFN	Confirmation	NL	Night Letter
CHGS	Charges	NR	No Record
CK	Check	NSA	No Such Address
COLL	Collect	NSN	No Such Number
CY	Copy	NSS	No Such Street
DELY	Delivery	OFS	Office
DEPT	Department	OGNL	Original
DUP	Duplicate	OUR	Our Message of Date
DFS	Disregard Former Service	PBX	Private Branch Exchange
DSTC	Delivered Subject to Correction	PTY	Party
DH	Deadhead	RDS	Reads
DLD	Delivered	RPT	Report
DLR	Deliver	REL	Release
DSTN	Destination	RP	Reply Prepaid
ESTC	Erase Subject to Correction	SGD	Signed
FM	From	SG	Signature
FLT	Filing Time	SUPVR	Supervisor
GOVT	Government	SVC	Service
GBA	Get Better Address	SYS	See Your Service
GSA	Give Some Address	UNDLN	Undelivered
LC	Left City	UNKN	Unknown
GQA	Get Quick Answer	WD	Word
		YR	Your Message Date

A chief clerk, together with his office force, attends to the clerical work of the Traffic Department, including time-keeping, statistical work, claims presented by patrons, and all correspondence of the department.

An Operators' School, under an instructress, is maintained for the purpose of training those who are to become either automatic, Morse, or telephone operators for the company. The students in this school are placed upon the payroll of the company and receive a salary while learning. Automatic operating is done almost exclusively by girls, while Morse operating is done almost as exclusively by men.

A nurse and a matron are also attached to the Traffic Department as part of the service which the company renders its employees.

The Plant Department.—It is the function of the Plant Department to see that there shall be, at all times, an efficient and well managed plant, including all equipment, for the proper transaction of the business of the telegraph company. The Plant Department of a telegraph company includes a corps of specialists trained in the science of telegraphic engineering. An army of engineers, mechanics, and laborers is constantly employed in the maintenance of the plant. This work comprises the care and repair of buildings and interior equipment, the opening of new offices and the installation of the proper equipment, erecting new land lines and laying new cables, and keeping the lines and cables in operation. In short, the Plant Department is charged with the performance of all duties connected with the installation, construction, inspection, maintenance, and improvement of equipment, plants, lines, and plant supplies.

The work of the Plant Department in each division is under the direction of a division plant superintendent. He is assisted by an office manager, a division supervisor of supplies, a division equipment supervisor, a division line supervisor, and a division plant accountant. In addition, there are in each district of the division a district plant superintendent, a district equipment foreman, and a district line foreman.

The Auditing Department.—The Auditing and Accounting Department of a telegraph company does not differ greatly from that of any other large institution in respect to the functions it has to perform. However, there are innumerable small items in the receipts and expenditures of a telegraph company, making close and constant supervision necessary. All offices in the field are financed on an advance basis through the fiscal agent located at division headquarters, upon whom drafts are drawn by offices for funds with which to meet

expenses. All receipts are deposited daily by each office to the credit of the fiscal agent.

A force of men, traveling out of the office of the division auditor, is almost constantly in the field making audits of accounts in the offices of superintendents and managers, and instructing employees in the requirements of accounting work.

EMPLOYMENT CONDITIONS IN A TELEGRAPH COMPANY

The work in a telegraph company is pleasant and clean; there are few occupational hazards or health risks connected with it. The employee who is industrious and takes an interest in the work finds it both pleasant and profitable. The work is neither seasonal nor sectional and the wages are not lower than the average for work of a similar nature in other lines of business.

The telegraph company pursues a broad and liberal policy toward its employees and takes an active interest in their moral and physical welfare. No messenger is allowed to deliver a telegram in a place of questionable repute. Any employee who is injured in the performance of his duty receives, during the time of his disability, not the sixty-five per cent of his wage as required under the regulations of the Industrial Accident Commission, but the full amount of his wage. The employee is also protected in sickness and old age by the benefit and retirement fund of the company.

Opportunities for advancement.—There are many opportunities for advancement of young workers to well paid and responsible positions in a telegraph company in all branches of its service. The employee who shows an aptitude for mechanical or electrical work can find congenial employment in the Plant Department. A line of promotion is open to him in that department, leading up from inside or outside operative work to supervisory and administrative positions in the district, divisional, and central administrative organization of the company. The employee who manifests interest and ability in the interpretation of statistical data will find the upward path wide open to him in the Accounting Department of the company. The young operator has an equal chance for advancement in the Traffic Department. The employee possessed of tact and good address will find an opportunity to make use of such abilities in the Commercial Department, through which the contacts with the public, necessitated by the numerous services which a telegraph company renders, are maintained.

Opportunities for training.—In the telegraph business the problem of providing training for youthful employees should not be particularly difficult for either the telegraph company or the public schools. Because of the difference in time between the eastern and western sections of the country, there is a part of each day, especially in the Rocky Mountain and Far Western States, when the volume of business is much smaller than in the earlier morning and later afternoon hours. During slack hours it should be a comparatively easy matter, especially in cities, to arrange for a considerable number of the younger employees to attend classes at the same time, thus giving opportunity for group instruction. By alternating the groups on various days of the week, it would be possible for practically all of the younger employees to receive instruction without materially disturbing the service.

Results of training.—The value of training for these minor positions, both to the telegraph company and to its junior employees, has been demonstrated by experiments conducted in a few telegraph offices in training their messenger forces. While this training has not been systematized, it has nevertheless been productive of some significant results. Among these may be mentioned a longer term of service, more efficient work, more opportunities for advancement, and a reduction in the cost of delivering messages.

THE PURPOSE AND SCOPE OF THE STUDY

Through a preliminary survey it was found that within telegraph and cable offices there are many positions held by young workers for which no training is offered but in which there is valuable teaching content. As a result of the lack of definite training, many of these youthful employees fail to appreciate the significance and importance of their jobs, or to see the various possibilities for advancement. The consequent rapid labor turnover in some of the positions is disadvantageous both to the telegraph company and to the employees, for in many cases the junior employees, especially the messengers, do not remain with the company long enough to become a real part of the organization. However, judging from the many and varied duties of the junior employees, a systematized program of training for them should be possible as well as profitable.

The purpose of this study was to discover the positions in this field which are filled by young workers or which could be filled by young workers, and to analyze the work both as to operations and teaching content. The positions to which particular attention is given are not those dealing with bookkeeping, stenography, typewriting, or the filing

of correspondence, but those found in the telegraph business which are, or may be, held by youths with less than high school education, and for which no formal or organized training is offered at present either by the schools or by the employing companies. The problem might also be stated as that of discovering what training could be offered by the Part-time Schools to youths employed in the telegraph business, since many of these youths come under the part-time school law in this and other states. In addition to junior positions, five others to which juniors might be promoted are analyzed.

OBTAINING AND ORGANIZING THE MATERIAL

The material embodied in this bulletin was obtained as the result of a study in the division offices of the Western Union Telegraph Company in San Francisco. After permission was obtained to make the study, the general nature of the work in a given position was obtained by interviewing the executive in charge. Then the worker in question was observed and his duties listed step by step. A rough draft was first made of the data collected, and this was then checked and revised after numerous conferences with officials and workers and further observation of the work. Before the final draft was made as it appears in the following pages, the material was submitted to the heads of the various departments and to other officials of the company. After their comments, suggestions, and criticisms were received, it was drafted into final form.

Determining the knowledge and skill required.—When the list of duties was completed and classified, the next step was to determine the knowledge and skill required for the proper performance of the duties and to arrange the knowledge and skill under convenient headings for purposes of instruction. This was done by examining each duty and grouping under appropriate headings the knowledge and skill required to perform it. It is evident that every such body of knowledge and skill will contain the following items:

1. The nature of the service rendered or the commodity sold by the department in which the job is found.
2. How to manipulate any office appliance or machine used in connection with the job.
3. The proper way to make social contacts, such as meeting patrons, delivering messages, receiving complaints, or answering the telephone.

4. The routine and regulations governing the work.
5. The proper way to perform each task.
6. The proper method of making reports of the work done.

Organizing the analyses.—The analysis of each job is divided into four sections. The first section contains a number of important facts concerning the job, including the department in which the job is found, the length of time required for an inexperienced worker to learn the job, the entrance requirements, such as age, sex, special skill or training, and personal, physical, and educational qualifications. The second section contains a classified list of duties connected with the job, as ascertained by observation, study, and questioning workers and department or bureau heads. The third section contains a classified body of knowledge and skill required in the performance of the duties, as deduced from a study of each task. In this part will be found only the knowledge which is of direct value on the job. The supplementary or background knowledge for all jobs with telegraph companies will be considered separately. The fourth section of each analysis contains a tabulation of certain of the more probable lines of promotion open to the worker on the job in question.

As each separate job was studied, the supplementary knowledge usually classified under the headings of English, arithmetic, commercial law, writing, and other subjects, was kept in mind and listed, but not labeled as English, arithmetic, etc. This has resulted in placing the emphasis upon learning the job as a whole instead of learning the separate related subjects.

Organizing the background material.—In addition to the minimum essentials, there is a body of background knowledge about the jobs and the occupation which should broaden the worker's understanding of his job and the occupation, give him a picture of the work as a service to society, and show him his relation to the service he performs, both as an employee in the organization and as a contributor to the social good. This body of background knowledge consists of the following items:

1. The history of the occupation.
2. The social and economic importance of the occupation.
3. The history of the employee's company and its relative importance in the field.

4. The policy of the company in relation to its employees and to the services it renders.
5. The opportunities for advancement in the occupation.
6. The business ethics and decorum, and the demands for good citizenship in the occupation.
7. The care of the health and the avoidance of injury in the occupation.
8. A vocabulary of occupational terms.
9. A list of books and magazines dealing with the occupation.

It is information of this character which should make of the employee more than a mere performer of duties. It should cause him to take an interest in the better performance of his duties, bring him to a realization of the fact that the interests of the company for which he is working are his own interests, and give him a feeling of pride in his occupation as a service to society.

PART TWO

ANALYSES OF THE POSITIONS

THE RECEIPT AND DELIVERY OF MESSAGES

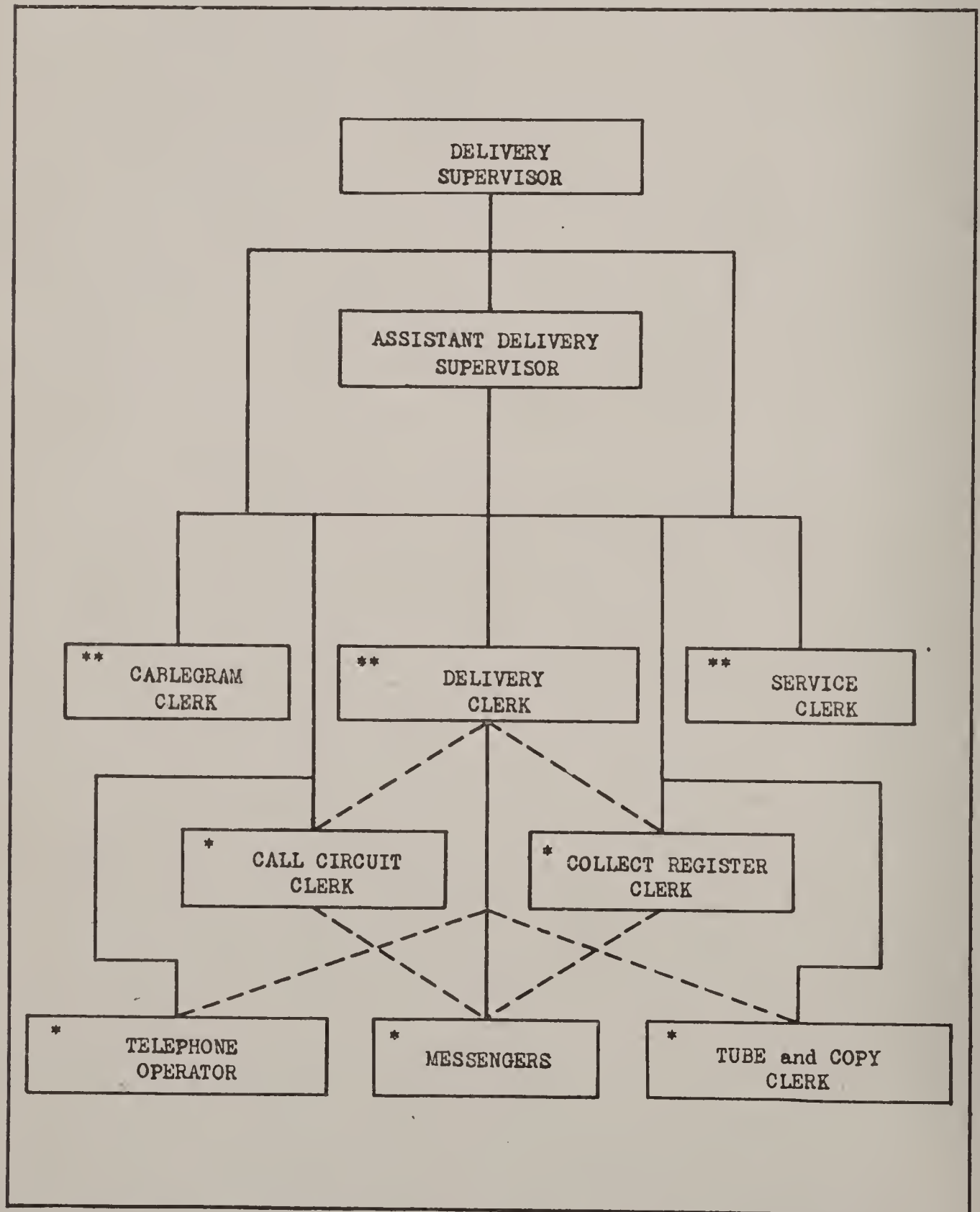
When a person sending a telegram steps up to the counter in a telegraph office with the message he is met by the receiving clerk in the Commercial Department. This clerk counts the number of words in the message, asks what class of service is desired, and whether the message is to go paid or collect. This information is placed in the upper right hand corner of the blank in the space marked "check." Then the clerk proceeds to ascertain the rate from the rate sheet, figures the charges or tolls, takes the cash and makes a record of it if the message is prepaid, and asks the sender for his address, placing it in the lower left hand corner of the blank. The receiving clerk also places in the check any special information such as special valuation of the message, request to have the message repeated back, request to report delivery, etc. The message is then sent to the Operating Division of the Traffic Department for transmission.

The Commercial Department also attends to the delivery of messages. The messages are received from the Traffic Department through the central distributing center. After being copied the messages are sorted into paid messages and collect messages. The night letters are segregated from the other paid telegrams, and all are placed in envelopes. The night letters are laid aside for delivery on the following morning. The others are sent out immediately.

The collect messages are passed to the collect register clerk. After the proper entries have been made these messages, too, are immediately sent out by messenger. Messages for which the addressee will call are also filed in the Commercial Department. When the Commercial Department is unable, for any reason, to locate the addressee and make delivery, the message is sent to the Service Department for handling.

When regular customers wish to have messengers call at frequent intervals they may, if they so desire, be placed upon the automatic call circuit. When a call comes in for a messenger the call circuit clerk tears off the tape coming from the call box, looks up the number registered on the tape in groups of dashes, ascertains the name and address of the person sending in the call, and instructs a messenger

to go there and bring in the messages. This work gives rise to the positions outlined in the chart of the Commercial Department, on page 9, and in that of the Delivery Department shown below. Analyses of the junior positions of Messenger, Mail Bureau Clerk, Tube and Copy Clerk, Call Circuit Clerk, and Collect Register Clerk, and the higher positions of Delivery Clerk, and Receiving Clerk, as illustrative of those to which juniors may be promoted, will be found on the pages immediately following.



ORGANIZATION DIAGRAM—DELIVERY DEPARTMENT

Note: Positions marked with one star (*) are entering positions. Those marked with two stars (**) are positions to which juniors may be promoted.

MESSENGER**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: commercial department.

Length of learning period: a few weeks on the job.

Special hazards: traffic risks.

Entrance requirements:

Age: usually not under sixteen.

Sex: usually male.

Previous skill or training: ability to ride a bicycle or motorcycle and care for it.

Personal qualifications: reliability.

Physical qualifications: a sound body and mind; loss of one arm the only exception.

Educational qualifications: literacy.

II. DUTIES*In regard to meeting the public.*

Endeavor to make a good impression for the company.

Keep the uniform, shoes, hands, and face clean, and the hair cut frequently.

Remove the cap on entering an office or residence.

Be courteous, prompt, and accurate.

Do not ask for gifts of money.

In regard to office regulations.

Follow the rules of the company in regard to the time of coming on and going off duty, relief time, lunch period, and in regard to getting and turning in the uniform each day.

When coming on duty report to the delivery clerk as soon as in uniform, in order to be recorded "on duty."

Report to the delivery clerk when going to and returning from lunch period, relief period, when returning from delivery, and when going off duty.

Be orderly and quiet while in the office awaiting turn to deliver messages.

Report to the delivery clerk or delivery supervisor any comment or criticism on the services of the company.

Notify the delivery supervisor if unable to report for duty.

In regard to equipment.

See that the bicycle or motorcycle is in good order before coming on duty.

Have pencil, message blanks, delivery notices, rate sheet, and a small amount of cash, in preparation for the day's work.

In regard to traffic regulations.

Be careful. Safety first! Be watchful and cautious when riding or walking in the streets.

Learn the traffic rules and obey them.

Do not hold on to moving street cars or automobiles.

Do not attempt to pass street cars or automobiles while they are slowing down, or standing at street intersections.

Do not pass any vehicle on the right hand side; always go to the left.

Always watch for pedestrians stepping from the curb or the street car in front of you.

Equip your bicycle or motorcycle with a bell or horn, and if used at night, with lights.

In case of accident, due either to your own fault or the fault of others, report the complete facts at once to your office and to the Police Department Traffic Bureau.

In regard to delivering messages.

In receiving messages:

Go to the delivery clerk when called.

Receive from the delivery clerk the messages and the corresponding delivery sheet.

Time the delivery sheet if the delivery clerk has not done so.

See that the number of messages received corresponds with the number listed on the delivery sheet.

In following the route:

Note the address on the topmost message envelope and proceed to that address.

Follow the route indicated by the route clerk and do not waste time in making the deliveries.

In making the delivery:

Note whether tolls are paid or collect, and if collect, the amount.

Note whether there are instructions on the envelope indicating that an answer is desired.

Note the name of the addressee and whether the message is addressed to more than one party.

Have the message and the delivery sheet ready when the door is opened.

State for whom the message is intended.

If the person answering the door is the addressee, or one authorized to sign for the addressee, deliver the message, get the signature, and if message is collect receive the money.

Write the time on the delivery sheet opposite the name of the addressee.

In no case sign the delivery sheet for the addressee.

If the addressee refuses to sign enter the time of delivery on the delivery sheet and report the matter to the delivery clerk.

If tolls are to be collected and addressee refuses to pay, deliver the message and make the proper notation on the delivery sheet.

When a star (*) appears after the name of the addressee, indicating that the message relates to sickness or death, deliver the message with all possible dispatch.

Remember that it is against the law to destroy a message, letter, or package entrusted to a telegraph company, or to disclose the contents of a message or letter, and that the offense is punishable by fine or imprisonment.

When delivering messages in care of hotels:

Leave the messages with the clerk at the desk except in the case of messages marked "personal."

Attempt to make personal delivery of any message marked "personal," unless assured by the clerk that personal delivery cannot be made.

If the addressee has left the hotel attempt to secure his forwarding address and make a note of it.

Inquire for messages which have remained undelivered for twenty-four hours and bring all such messages back to the office unless the persons to whom they are addressed are scheduled to arrive later.

When delivering messages to the postoffice:

When messages are received for delivery to the postoffice hand them to the clerk at the window.

When requested to do so by the delivery clerk, attempt to get from the postoffice clerk the local addresses of persons whose messages should not be delivered through the postoffice.

When delivering messages addressed to passengers on trains:

If there is sufficient time, pass through the train calling the name of the addressee.

If there is not sufficient time to pass through the train, request the conductor to sign for the message and to endeavor to make delivery.

At terminal points for trains attempt to make delivery by loudly calling the name of the addressee from a point of vantage as the passengers are leaving the train.

In regard to getting an answer.

- If the notation on the envelope indicates that an answer is desired, call the attention of the addressee to the fact.
- Furnish the addressee with a message blank and pencil for writing the answer.
- Inquire what class of service is desired, and mark the blank accordingly.
- If necessary, give the addressee information to assist him in writing the answer.
- Ask whether the sender of the reply has a telephone, and note the number if he has one.
- Inquire whether the message is to be collect, prepaid, or charged, and mark the blank accordingly.
- If charges are to be prepaid, figure them with the aid of the rate sheet, or ascertain them upon return to the office. Then call again upon the sender to return his change or to make collection.
- If addressee refuses to send an answer, try to ascertain his reason and make a note of it for the information of the office.

When residence or office is closed.

- Leave a closed notice at both the front and the back door, to the effect that a message is at the office awaiting delivery.
- If the message bears an alternative address try to locate the addressee at the alternative address.
- If the message is addressed to more than one person, attempt to make delivery to the second addressee.
- If the residence or place of business is closed, make a note of the fact upon the envelope of the message.
- Deliver no messages to janitors, elevator operators, porters, or to anyone on the street or doorstep, or in the vestibule or hallway of an office building or apartment house, when the addressee cannot be found, except upon the written authorization of the delivery clerk.
- Leave no messages under doors, or in mail boxes, unless the messages bear the proper endorsement of the delivery clerk.

In case of wrong address or "no such number."

- If message cannot be delivered because of wrong address, telephone to the delivery clerk for correction or verification of the address.
- Use the abbreviation "Unkn." to indicate that the addressee is unknown at the given address.

If there is no such street number as that found in the address try to locate the addressee at some of the nearby houses; also telephone to the delivery clerk for verification or correction of the address. Use the abbreviation "N. S. N." to indicate that there is no such number.

When addressee has moved.

If the addressee is reported to have left town, try to ascertain his present address and write it upon the message envelope.

Use the abbreviation "Moved, Ads. Unkn." to indicate "Moved, address unknown."

If addressee has moved to a nearby address, attempt to make delivery at the new address.

If the new address is too far off the route, make a note of the address and return the message to the office.

In case of a loss.

If a message, delivery sheet, note, or package is lost, report the facts to the delivery clerk immediately.

In regard to circuit calls ("pick-ups").

Listen attentively to the clerk to get the correct name and address of the person sending in the call.

Proceed to the designated office and get the message or messages to be sent.

If the messages are enclosed in envelopes by the customer, do not remove them from the envelopes.

If messages are not in envelopes, place your number upon the back of each message before handing it to the call circuit clerk.

Take the cash if the message is to be prepaid.

If the customer presents a message written on the blank of another company, say to him, "I will bring you a supply of our blanks."

If the customer himself requests the blanks of your company, tell him you will bring them to him at once. Report to the call circuit clerk, get a supply of blanks, and take them to the customer.

In regard to errand service.

Take the blank from the clerk and proceed to the place indicated.

Perform the service required.

Keep a record of car fare, if any.

Make the collection for the service performed, as indicated on the blank handed you by the clerk in the office.

Get the proper signature to the blank.

Return to the telegraph office and hand in the blank, together with any cash received.

In regard to making the report.

When delivery has been attempted on all messages, return at once to the office and report.

Time the delivery sheet to indicate the time of returning to the office.

Turn over the delivery sheet, all cash received, and all undelivered messages to the delivery clerk.

Give the delivery clerk full information in regard to undelivered messages or other delivery matters.

In regard to the services of the company.

Learn the various classes of telegrams and cablegrams and the rules governing the use of each class.

Learn what other services the telegraph company renders in addition to its telegram and cablegram services.

Give information in regard to the services of the company to those who inquire about them.

In regard to the regulation of telegraph companies.

Learn and observe the rules of the Interstate Commerce Commission and the State Railroad Commission regarding the handling of messages, especially in regard to the delivery of messages.

In regard to giving additional service.

Be on the alert to notice and report matters of possible business interest to the telegraph company.

Be ready to serve the patrons of the company in any legitimate way.

In regard to routine.

Learn the company's method of doing certain things in certain ways, especially in delivering messages, answering calls, doing errands, and making reports.

In regard to the policies of the company.

Follow the policies of the company in regard to serving the public courteously, promptly, and efficiently.

Follow especially the policies of the company in regard to performing all services in which messengers play a part.

Promote the interests of the company through good service.

In regard to good English.

Use correct English when addressing patrons, fellow employees, and officers of the company.

In regard to penmanship.

Write neatly and legibly when making figures or notations of any kind on message envelopes, delivery sheets, and delivery notices.

(*Space left for additions.*)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

Meeting the public.

The value of courtesy, neatness, promptness, and accuracy in any business, and to any employee who meets the public.

The importance of being businesslike when delivering or collecting messages, doing errands, or answering questions.

How to ask politely the questions necessary in getting information needed by the company.

What constitutes a neat appearance, and how it helps to make a good impression.

Why a messenger should not expect tips or gifts from patrons of the telegraph company.

Why a messenger should not cross a lawn, ring a doorbell unduly long, or slam a door when leaving an office.

How to receive politely any comments or complaints relative to the service of the company.

Why a patron who makes a complaint is always assumed to be in the right.

Office regulations.

The rules of the company in regard to the time of coming on and going off duty, lunch time, relief time, lost time, vacations, reporting for duty, giving notice of absence, etc.

The great importance of obeying rules and regulations.

Why time is such an important factor in the telegraph business, especially in that part of the work which is entrusted to the messenger.

Why messengers must report to the delivery clerk, and why the delivery clerk must keep a careful record of their time in making deliveries or collections.

The messenger's equipment.

Why a uniform is worn by messengers while on duty.

Why the uniform must be turned in each day before going off duty.

How a neat uniform aids in making a good impression.

How to care for a bicycle or motorcycle.

Why the messenger should see that his bicycle or motorcycle is in good order before coming on duty.

Why messengers should carry message blanks, closed notices, rate sheets, a pencil, a watch, and a small amount of money.

Traffic regulations.

The present day necessity for strict traffic regulations in small cities as well as in large cities.

The conditions that have made "Safety first!" the great national traffic slogan.

Why the "unexpected" so often happens in street traffic.

General and local traffic rules and regulations.

Why traffic rules should be known and obeyed not only by street car and automobile operators, but also by motorcyclists, bicyclists, and pedestrians.

Rules which bicyclists and motorcyclists should observe while in traffic.

The kind of accidents which usually happen to messengers—those for which they are to blame; those for which they are not to blame.

How these accidents usually happen and how a careful messenger could avoid all of them.

The importance to all concerned of having messengers who obey traffic regulations.

The importance to the company of having all the facts in regard to any accident, no matter who may have been responsible for it.

The responsibility of messengers to others who are on the streets.

The reasons why accidents should be reported to the Traffic Bureau of the Police Department.

The responsibility of the messenger to the community in preventing traffic accidents.

Delivering messages.

Receiving messages for delivery.

What the messenger should receive from the delivery route clerk.

How and why the messenger should check the messages against the delivery sheet.

Why the delivery sheet should be timed by the delivery route clerk.

Why the messages are routed by the delivery route clerk.

Why every message is considered important, and why it should be delivered quickly.

The relative importance of various classes of messages.

How to guard against loss of messages or delivery sheets while on the route.

Following the route.

The importance of following the route indicated by the delivery route clerk.

The numbering system used in the city; the location of the streets, important buildings, and street car lines of the city.

How to proceed to find an unknown address.

Making the delivery.

The importance of noting special instructions or markings on the message envelope, whether the message is paid or collect, and if collect, the amount.

The importance of noting carefully the name of the addressee.

How to address the person who answers the door.

What to say if the person who answers the door is not the addressee.

What persons are authorized, under ordinary circumstances, to receive messages for addressees.

The importance of getting a signature for each message delivered, and of noting the time of delivery on the delivery sheet.

What to do in case of a refusal to sign for a message.

Why the messenger should not sign the delivery sheet for the addressee.

What to do in case of a refusal to pay the tolls on a collect message.

Who may and who may not be told the name of the addressee of a message.

Why the messenger should not tarry at an address, but proceed at once to the delivery of the next message.

The law in regard to destroying a message, letter, or package entrusted to the telegraph company.

Delivery in care of hotels.

To whom the messenger is supposed to deliver messages addressed in care of hotels.

What the messenger should do when a message is marked "personal."

Why the messenger should pick up uncalled-for messages, unless the addressee is scheduled to arrive later.

What the messenger should do when the addressee has left before the delivery of the message.

Delivery to postoffices.

To whom the delivery should be made.

At which window the delivery should be made.

Why the telegraph company does not always make delivery through the postoffice, even when the message is so addressed.

Why the telegraph company sometimes makes delivery through the postoffice, instead of in the ordinary way.

Delivery in care of trains.

Why the messenger should attempt to make personal delivery if there is time to pass through the train.

To which train official delivery should be made if there is not sufficient time to pass through the train.

How to proceed to find the conductor; how to recognize him.

Why the conductor should sign for the message.

What the messenger should do if he reaches the depot after the departure of the train.

Getting an answer.

What the messenger should say to the addressee when the notation on the envelope indicates that an answer is desired.

Why the messenger should be ready to furnish message blank and pencil.

What inquiries the messenger should make regarding tolls and classes of service desired.

The data required by the company for the proper handling of a message. How to mark this information upon the message blank.

How to use a rate sheet in determining the tolls on a message which is to go prepaid.

Why the messenger should be able to use a rate sheet.

Why the messenger should ask for and note the telephone number of the person sending the answer.

What the messenger should do if the addressee refuses to send the desired answer.

Finding residence or office closed.

What the messenger should do if he finds the residence or office of the addressee closed.

The importance of the closed notice to the company and to the addressee.

How to make out a closed notice.

What to do in case two addresses or two addressees are named on the message.

Why messages should not be left under doors, or in mail boxes; why they should not be delivered to janitors, porters, or elevator operators, except upon written authorization of the delivery clerk.

Finding address wrong or no such number.

What the messenger should do if there is no such number as that indicated in the address, or if the addressee is unknown at the address given.

Why it is important to enquire for the addressee at nearby houses. The importance of doing this for the addressee even though it means a loss of time to the messenger.

Why the messenger should telephone to the delivery clerk, before returning, and ask for a verification or correction of the address. How to use telephone directories, city directories, building directories, etc., in attempting to locate an addressee.

When addressee has moved.

What the messenger should do in case the addressee is no longer at the given address.

Why the messenger should make delivery before returning if he finds that the addressee has moved to a nearby address, even though the address may be off his route.

The frequent inconvenience to the sender and addressee, as well as the additional expense to the telegraph company, if the messenger fails to get the new address.

Procedure in case of loss.

The importance to the company, the sender, and the addressee, of making an immediate report in case a message, note, or package is lost.

The great importance of guarding against losses while making delivery.

The messenger call service.

The nature and importance of the messenger call service (sometimes called the pick-up service or call circuit service) to the public and to the company.

Why a regular patron is better than a chance patron.

Why it is important that representatives of the telegraph company should make a good impression in business offices to which they are called to pick up messages.

How the messenger should enter an office to which he is called, what he should say and do upon entering, and how he should leave.

What the messenger should do when customers or others to whom he is called present messages on blanks of other companies.

What the messenger should do if the messages are not in envelopes.

Errand service.

The great variety of services messengers are called upon to perform for officials and patrons of the company.

How a courteous and willing messenger can make many friends for himself and for the company by prompt and efficient service.

How the messenger should make the contact with the patron and with the person to whom he is sent.

The kind of blank used by the messenger in this service and how it should be used.

Making the report.

What to do upon the return to the office after each delivery.

Why the messenger should time the delivery sheet.

The importance of making a complete report to the delivery clerk of all facts regarding the non-delivery of any message.

What to do upon the return from pick-up or errand service.

The importance of making an accurate accounting for money received from patrons.

Classes of service.

The nature and use of the various classes of telegraph and cable service.

The other kinds of service rendered by the telegraph company.

Why a messenger should be able to furnish information in regard to the various services of the company.

Regulation of telegraph companies.

The rules of the Interstate Commerce Commission and the State Railroad Commission in regard to the handling of messages by telegraph companies.

Why messengers should be familiar with these rules.

Giving additional service.

How the messenger can help himself and his company in many ways by being alert to see opportunities for giving additional service.

How a little thing, such as noticing and reporting that a patron has no clock in his office, or that he asks the time of day, may result in additional business for the telegraph company.

The opportunities for transfer and promotion into other lines of business for messengers who make a good impression upon business men with whom they come in contact.

Routine blanks and forms.

The advantages of a routine way of doing things.

What happens when a delivery sheet is lost or returned with a signature missing.

What happens when a message or any article entrusted to a messenger is lost.

The use of the returned delivery sheet.

The use of the blank form taken by the messenger on call service.

Policies of the company.

The policy of the company in regard to the performance of all services in which the messenger plays a part.

Why it is the policy of the company to serve the public to the best of its ability.

The dependence of the company upon its employees for carrying out its policies.

The policy of the company in regard to the promotion of efficient messengers. What the opportunities are for promotion to other positions in the company.

English.

Simple rules for correct oral English, with special reference to the vocabulary of the telegraph business.

Simple rules for correct written English, with special reference to correct, concise notations on message envelopes, delivery sheets, and closed notices.

The importance of correct oral and written English both to the messenger and to the telegraph company.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

For the messenger who is alert, intelligent, and willing to work, who is prompt, accurate, and courteous, there are many opportunities for advancement to positions of greater responsibility and better salary. Because of the comparatively rapid turnover of the messenger force, promotion is apt to come more quickly for a messenger than for other junior employees.

Listed below are a few of the lines of promotion open to the telegraph messenger.

1	2
<i>One line of promotion</i>	<i>Another line of promotion</i>
From messenger to:	From messenger to:
(a) Call-circuit clerk. (b) Collect register clerk. (c) Delivery route clerk. (d) Delivery supervisor.	(a) Delivery clerk. (b) Receiving clerk. (c) Bookkeeping clerk. (d) Cashier. (e) Manager.
3	4
<i>Another line of promotion</i>	<i>Another line of promotion</i>
From messenger to:	From messenger to:
(a) Receiving clerk. (b) Money transfer clerk. (c) Money transfer agent.	(a) Morse operator (in small office). (b) Manager (in small office).
5	
<i>Another line of promotion</i>	
From messenger to:	
(a) Morse operator (in small office). (b) More operator (in division office). (c) Unit supervisor. (d) Assistant chief operator.	
6	
<i>Another line of promotion (for girls)</i>	
From messenger (in office building branches) to:	
(a) Telephone recorder. (b) Branch manager.	

RECEIVING CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: branch or city offices.

Length of learning period: learn while serving in some junior position in the commercial department.

Special health risks: none.

Entrance requirements:

Age: eighteen or over (usually over twenty-one).

Sex: male or female.

Special skill or training: none, other than a knowledge of the work of the office.

Personal qualifications: accuracy, and courtesy in dealing with public.

Physical qualifications: must pass special physical examination prescribed for all employees except messengers.

Educational qualifications: eighth grade or higher.

II. DUTIES

When receiving telegrams from patrons.

Ascertain the class of service desired, observing the following rules:

If patron is not familiar with the various classes of service, explain the nature of the service and the difference in rates for day messages, night messages, day letters, and night letters.

Acquaint patron with difference in time between various places in this country, or in foreign countries, to aid him in selecting the best and most economical class of service. (For example, if patron wishes to send a day letter to a firm in a distant city, when the difference in time would not permit delivery before closing hours, suggest to him the advisability of a night letter.)

In all cases accept the patron's decision as to class of service as final after making the suggestion to him.

Observe the following rules in regard to the address:

Request a full and complete address.

If proper address cannot be furnished, endorse the message "accepted at sender's risk," and inform the sender of this action.

When a message is to be called for at the office of destination instruct the sender that the proper address is "will call."

Do not accept a message addressed in care of the telegraph company at destination unless the addressee is an employee of the company.

- If the message is an answer, and sender is unable to give a sufficient address, write in the address the words "an answer," followed by the word "date," or the date of the message answered, followed by the office call and the name of the city from which the answered message came. (e.g., John Jones, an answer six, Care MS, New York, N.Y., for an answer to John Jones' message of the sixth of the month from the M.S. office in New York.)
- If the sender is a colored person and the message is going to a point in one of the southern states, suggest to the sender that if the addressee be colored, the word "colored" should be added after the name of the addressee in order to facilitate the delivery of the message.
- If the sender requests the message delivered by telephone or not by telephone, record "telephone" or "don't telephone," as the case may be, after the name of the addressee.
- If the message is addressed to a passenger on a train, see that the address contains the name of the railroad; the train number or name, or time due at place where message is to be delivered; the section, if known and if the train runs in sections; the point for which the passenger is bound; that if possible the message be destined to a regularly scheduled intermediate stop. Notify the sender that there is no assurance of delivery if the message is destined to a terminal point. Do not accept the message "collect."
- Notify the sender that "try hotels" is not a sufficient address to insure delivery if such words appear in the address, but accept the message.
- If message is addressed to a person on a rural free delivery route, ask the sender if delivery can be made by telephone and if so place the notation "telephone" in the address. If sender does not know whether delivery can be made by telephone or if he requests special messenger service, require him to pay or guarantee delivery charges.
- If message is addressed to an officer or enlisted man at a post, station, or camp, see that, if possible, the address shows the branch of the service, the regiment, company, and rank of the addressee.

Count and charge for words according to the following rules:

- Count and charge for all words in the address which are not necessary to enable the company to identify and locate the addressee. In alternative addresses count and charge for all words constituting the alternative.

Do not count or charge for the telephone number if given in addition to the street address.

Count as one word the surname of any person (e.g. Van Metre).

Count initials as one word each.

Count proper names according to the number of words and initials which they contain.

If sender insists on using a code signature count and charge for the signature and add the designation "sig. ctd." to the check of the message.

Count all signatures to government messages whether in code or in plain English but make no notation in the check.

Count as one word each, irrespective of length, dictionary words taken from the English, German, French, Italian, Dutch, Portuguese, Spanish, or Latin languages.

If message contains combinations of dictionary words (firstclass) or of mutilated dictionary words (havyu) count and charge for them according to the number of words of which they are composed. Count as one word combinations found in the dictionary (carload). In all such cases indicate the count by an underscore, a vertical dividing line, and by placing the number of words under the underscore (car|lot, first|class, carload).

2
2
1

Count at the rate of one word for every five letters or fraction of five letters all groups of letters not dictionary words or combinations of dictionary words. (Amma, one word; fsddln, two words; sutemiloram, three words.)

Count as one word each all figures, decimal points, punctuation marks, or bars of division. Call attention of sender to this rule and to the liability to error in transmission. If sender insists, count according to the rule, underscore the figures, indicate the decimal point or punctuation by an arrow $\frac{(44.22)}{\uparrow}$ and indicate the count of the decimal point or punctuation in the check.

If sender presents a message containing symbols (such as %, ¢, #, ", ') request him to substitute the corresponding words if he wishes to insure correct transmission. If sender wishes symbols transmitted count them according to the words which they represent. Do not accept for transmission accent marks or double dots.

Count and charge for the words "deliver and report back," "repeat back," "valued \$80.00," and similar instructions.

Count, but do not charge for the word "collect" in a message.

Count the following as one word:

- (a) Western Union, day letter, night letter, parcel post, cannot, can't.
- (b) a.m., p.m., f.o.b., c.o.d., c.i.f., c.f.i., c.a.f., l.c.l., o.k., s.s.
- (c) Names of countries, states, territories, provinces, counties, cities, towns, and villages.

Count the following as two words: New Year, can not.

Count according to the number of words or initials composing them illegitimate combinations, such as bando for B. and O., unless the sender can show that they are legitimate code words of his code.

Do not count the words in "contract" or "dead-head" messages to "this line" points.

Count the words in "contract" or "dead-head" messages to "other line" points, unless the sender is entitled to send "contract" or "dead-head" messages over both lines on the same account.

If sender presents a message destined to a point which shows an "other line" rate and free service or a lower rate to telephone subscribers, charge the "other line" rate, subject to refund, if sender does not know addressee to be a telephone subscriber.

Observe the following rules in regard to the rate and the price:

Learn the rates to important points in the state and outside the state for the various classes of service for ten-word messages and fifty-word letters. Price the message accordingly, adding proper charge for each additional word.

If not sure of the rate to any point, look up the destination in the tariff book. Find the number opposite the name of the destination point, and whether it is a starred point. Look up the destination point on the "square sheet" showing the states in squares or blocks. If destination point has a number, apply the state rate. If destination point has one, two, three, or four stars, indicating special charges because it is an "other line" point, or a point off the telegraph line reached by messenger, by telephone, or by an off-line representative, add such charges to the state rate.

Add the war tax to each message, figuring it five cents for charges not over fifty cents and ten cents for charges over fifty cents.

Observe the following rules regarding the collection of tolls and other charges:

Accept as "collect," without the deposit of a guarantee, an answer to a prepaid message.

Accept as "collect," without the deposit of a guarantee, a message signed by a member of a social or commercial organization of recognized standing, or a message from any person of apparent responsibility.

Require a deposit to cover the tolls only in case the message is tendered by an obviously irresponsible person, or under circumstances offering definite reason to believe that the message will not be paid for either by the addressee or the sender.

Accept "collect" message when "collect cards" are presented, permitting a message to be sent collect from any office of the company without guarantee.

Observe the following rules in regard to franks, C.A.K. messages, D.H. messages, identification cards, and collect cards:

Accept message offered under the above conditions if the evidence is clear that its transmission is authorized by the frank, the identification card, or the collect card, taking into account the person sending the message, the nature of the message, the class of service, the date of expiration of the card, and the authorizing signature on the card.

Honor complimentary franks and directors' franks for all classes of messages except cable messages.

Do not honor business franks or identification cards for day letters, night letters, or cable messages, unless the card covers these classes of service.

Accept C.A.K. without a frank messages from officers or agents of a railroad company with which the telegraph company has a contract.

Accept free the personal messages of employees of an urgent social or domestic character on the written approval of an officer of the telegraph company.

When checking messages (marking on them the necessary data) observe the following rules:

Indicate in the proper space the class of service if the sender has not done so.

Place the receiving clerk's number in the proper space.

Place in the proper space the time when the message was filed.

Mark in the space for the check the number of words counted and charged for and whether the tolls are paid or collect.

Indicate in the check after the word "collect" or "paid" any extra words which are counted. For example, check a ten-word message, with three extra words in the address, "13 paid 3 extra" or "14 collect 3 extra."

When messages contain combinations or mutilations of dictionary words, or combinations of letters not dictionary words, give such messages a double check, indicating by the first figure the number of words counted, and by the second figure the number of words written by the sender. ("10/8 Paid;" "11/9 Collect.")

Indicate in the check all special instructions of the sender to repeat back, or deliver and report back, delivery guaranteed, or to have the message valued at more than fifty dollars.

When contract or dead-head messages are to be sent, indicate in the check the arrangement under which they are filed for sending.

When there are "other line" charges on a message, indicate both the "this line" and the "other line" charges separately in the check.

Check a day letter, night message, or night letter according to the above rules, and in addition insert after the word "paid" or "collect" the designation "blue" for a day letter, "nite" for a night message, and "N.L." for a night letter.

Observe the following general rules:

Give any aid or explanation necessary to enable the sender to prepare his message.

Make no change in any message. If errors appear refer message to sender. If sender refuses to make corrections accept the message as originally submitted.

Make indistinct words plain by marginal notations.

Do not accept messages containing profane, obscene, or libelous language.

Do not make any promise regarding the transmission or delivery of a message.

Request and record the sender's address and telephone number unless he is well known.

If sender fails to sign his message call his attention to the omission. If he does not then sign it write in place of the signature "not signed," unless it is a government message.

If signature is in code, inform the sender that code signatures must be counted in figuring the charges.

Accept, only upon payment or guarantee of an amount sufficient to cover the tolls and probable charges, special delivery messages to points outside the free delivery limits of the terminal office, for which the delivery charge is not given in the tariff book.

When message is offered during interruption of lines inform the sender that the message can be accepted only subject to delay, for transmission as soon as the lines are restored. Write upon such message the notation "subject to delay."

Stamp or write on each message the designation of the receiving office or branch, the date, and the designation of the receiving clerk.

Forward the message immediately via the pneumatic tubes or take message to the operator for transmission.

When receiving cablegrams.

Give patron any assistance or instructions necessary in writing the message.

Accept cablegrams to only those countries with which cable service is in operation.

Accept cables in code language only in case of a full rate message.

Accept deferred half-rate messages, cable letters, or week-end letters in the English language, the language of the country of destination, or in French.

Accept for mailing beyond London cable letters or week-end letters.

Accept no cablegrams "collect."

Count and charge for all words in cablegrams, including address, body of message, and signature.

See that each address contains at least two words.

Place on the cablegram in the proper space the number of the cablegram, the time filed, and the number of words.

Forward the cablegram at once to the proper office for transmission.

When receiving messages from messenger boys.

Examine message to see that it is properly made out.

Send messenger back or telephone to sender if message is not correct.

Figure the charges and send messenger back for them, or send him back with change, if message is to be paid for by sender.

If message is C.A.K. or collect, check it accordingly.

When receiving requests to transmit money.

Give the patron the proper application blank.

Assist the patron in making out the application if necessary.

Be sure that patron understands the meaning of "waiving identification" and requiring "personal identification."

If patron wishes to "waive identification" of payee, request him to sign the waiver on the application blank.

Place on the application blank the number of the application, the time filed, and the designation of the receiving clerk.

Ascertain the transfer charges and the telegraph tolls to destination if a message is included with the money transfer, and figure the war tax.

Place on the application blank the principal, the transfer charges, the telegraph tolls, the tax, and the total charges, including those for special valuation of the message or for having the message repeated back.

Fill out and hand to the sender a receipt for the money received.

See that the money transfer clerk gets the application promptly.

When handling cash.

When coming on duty receive cash from the cashier.

Place cash in proper compartments in the cash drawer.

Make change for patrons who pay in advance for transmitting messages.

Make a record on the cash sheet of each item of cash received.

Balance the cash in the drawer with the total of the cash sheet, and turn cash and cash sheet over to cashier when going off duty.

When delivering messages over the counter.

Look up message in the files or telephone regarding it to delivery department.

Write message number; charges, if a collect message; and time delivered, on the delivery sheet.

Have caller sign the delivery sheet.

Place delivery sheets in proper drawer for the delivery department.

When payee calls for money.

When payee inquires regarding a money transfer call the proper clerk or official to attend to the transaction, or direct the payee to the proper counter.

(*Note.*—Counter clerks may receive application for money transfer from sender, but may not pay money to payee unless properly trained.)

When rendering other services to patrons or callers.

Call messengers for delivery service when requested by patrons.

Listen to complaints of patrons regarding the service and assist them in settling the difficulty or refer them to the proper official.

Give patrons or callers at the office legitimate information as to such items as are listed below:

- (a) The geographical extent of the company's service.
- (b) Connections with other lines.
- (c) Various classes of service, the cost of each to any point, and what each means.
- (d) Various classes of cable service.
- (e) Money transfers.
- (f) Messenger service.
- (g) Differences in time between local points and distant points in this or other countries.
- (h) Location of local streets, buildings, or firms.
- (i) Inquiries regarding expected messages.
- (j) Opening or closing time of branch offices.

(Space left for additions.)

III. REQUIRED KNOWLEDGE ARRANGED IN INSTRUCTIONAL UNITS

Direct Value Units.

The classes of telegrams.

The different rates and the nature of the service rendered by the company on day messages, night messages, day letters, and night letters.

The difference in time between various sections of the country, and between local and foreign points.

The company's rules regarding the various classes of service on telegrams.

The address.

What constitutes a full and complete address.

When a message should be endorsed "accepted at sender's risk" on account of faulty address.

The correct use of "will call" and "care of the company" in the address.

How an answer to a telegram should be addressed when sender is unable to give sufficient address.

The rule regarding messages addressed to colored persons at southern points.

The rule covering the insertion of directions in the address in regard to telephoning message to addressee.

The rules regarding messages addressed to passengers on trains.

The rule regarding the notation "try hotels" in the address.

The rules regarding the address in messages going to rural free delivery points.

The rules regarding the address in messages destined to officers and enlisted men.

Counting and charging for words.

What words in an address are not necessary to enable the company to locate and identify the addressee.

What constitutes an alternative address.

How to count initials, proper names, and surnames.

The rule in regard to counting and charging for code signatures.

The rule regarding counting words in foreign languages.

What foreign languages may be used in transmitting messages.

The rules regarding combinations of dictionary words or mutilations of dictionary words, groups of letters not forming words, figures, decimal points, punctuation marks, symbols, and illegitimate combinations.

The rules in regard to counting special instructions to the office of destination.

Which names and abbreviations must be counted as one word, and which as two words.

The rules in regard to counting "contract" and "dead-head" messages to "this line" and to "other line" points, to persons known to be telephone subscribers and to persons not known to be telephone subscribers.

Rating and pricing.

The difference in the rates for the different classes of telegrams.

The rates to important local and distant points.

How to use the tariff book and the rate sheets in determining the rates to "this line" and "other line" points, and to points not on a line.

How to apply the rate in figuring the charges on a message.

How to figure the war tax on a message.

The collection of tolls.

The rules covering the acceptance of messages to be sent collect.

When it would be advisable to require the sender to prepay the tolls.

The rule regarding the privileges of the holder of a "collect card," or of an "identification card."

Franks, C.A.K. messages, and D.H. messages.

The different kinds of franks and the rules regarding their use.

The rules in regard to accepting C.A.K. messages and employees' messages.

Collect cards and identification cards.

The distinction between a collect card and an identification card.

The privileges of the holder of either a collect card or an identification card.

Checking messages.

Where to indicate the class of service.

Where to insert the receiving clerk's number.

How and where to indicate the time of receiving message.

How to check a paid message and a collect message.

How to indicate in the check extra words counted in the address or signature.

How to indicate special instructions in the check.

How to check "contract" and "dead-head" messages.

How to check messages containing combinations of dictionary words, of mutilated words, or of letters not forming dictionary words.

How to check messages containing both "this line" and "other line" charges.

The symbols used in checking day letters, night letters, and night messages.

General rules.

How to aid patrons in preparing messages.

The rules in regard to errors and indistinct words in messages submitted for transmission.

The rule in regard to messages containing profane, obscene, or libelous language. What constitutes profane, obscene or libelous language.

The rule in regard to making promises to patrons.

The rules in regard to the sender's signature and address.

The rules in regard to accepting messages which require special delivery.

The rule regarding the acceptance of messages during interruption of lines.

The rule regarding the stamped or written designation of the receiving clerk.

How to operate the pneumatic tubes.

Cablegrams.

How to assist and instruct patrons in writing cablegrams.

The countries to which cable service is in operation.

Under what conditions code language is permitted in cablegrams.

The language in which full rate messages, deferred half rate messages, cable letters, and week-end letters may be accepted.

The rule in regard to accepting cable letters and week-end letters for mailing.

The rule in regard to the prepayment of tolls on cablegrams.

How to count and charge for plain English words, code words, cipher words, and foreign words in the address, text, and signature of a cablegram.

What data to place upon the cablegram.

What disposition to make of the cablegram after receiving and checking it.

What constitutes an acceptable address on a cablegram.

Receiving messages from messenger boys.

What to do in case message is not properly made out.

What to do in case sender has not sent charges by messenger, or has sent an insufficient amount or too large an amount.

Money transfers.

What to do first when a patron requests the company to transmit money.

How to assist patrons in filling out the application.

The difference between requiring personal identification of the payee and waiving identification of the payee, and the importance of explaining this difference.

The procedure in case the sender waives identification.

The data to place upon the application blank in regard to number, time, and clerk.

How to figure the charges on a money transfer, including or not including a message, and including the tax.

What data the application blank must contain.

How to make out a receipt for the sender.

What disposition to make of the application.

Handling cash.

The importance of counting the cash received when coming on duty.

How to arrange the cash conveniently and systematically in the cash drawer.

How to make change and count it back to the payer.

How to keep the record of cash received.

How to balance the cash against the record of cash received.

Delivering messages over the counter.

The system of filing messages to be called for.

How to obtain from the files messages called for; what to do in case any message is not found in the files.

What data the delivery sheet should contain regarding each message.

The rule regarding a signature for every message delivered.

What disposition to make of the delivery sheets.

Payee's inquiries regarding money.

What to do when payee calls regarding money expected.

Who has the right to pay out money.

Rendering other services to patrons and callers.

How to get a messenger quickly.

The importance of giving courteous attention to complaints of patrons and assisting them in settling difficulties.

The geographic extent of the company's service.

The company's connections with other lines. How to find information regarding such connections.

How to explain the various classes of service. How to find or figure the charges for each.

How to explain the various classes of cable service and find or figure the charges for each.

The nature of the company's money transfer service; how to explain this service; and how to find or figure the charges.

The nature of the company's messenger service.

The difference in time between local points and distant or foreign points.

The location of important streets, buildings, and firms.

How to answer questions regarding expected messages.

The opening and closing time of branch offices.

Supplementary Units.

The classes of telegrams.

Why a telegraph company has different classes of telegraph service and charges different rates for each class.

The importance of knowing differences in time for different sections of the country, and the relation of this knowledge to the different classes of telegraph service.

Why the company has different rules and rates covering each class of service.

The address.

Why a telegraph company wishes every message to bear a complete address.

Why a faulty address should be accepted at the sender's risk and so endorsed.

Why it is necessary to make a distinction between a "will call" address and an address "in care of the company."

Why it will be of assistance to designate a telegram as an answer to another of a particular date if the sender is not sure of the address of the sender of the telegram which he is answering.

Why the word "colored" should be placed after the name of a colored addressee in the southern states.

Why the address should sometimes contain instructions in regard to reaching the addressee by telephone.

The great necessity for completeness in the address of telegrams to persons on trains.

What the notation "try hotels" means from the standpoint of delivery expense; the possibilities of non-delivery of such messages.

Why special directions are often necessary in the address of messages going to rural free delivery points.

Why an especially detailed address is necessary in messages going to officers and enlisted men.

Counting and charging for words.

Why the company charges for extra words in the address of a message.

Why the company charges for an alternative address.

Why the counting of initials, proper names, and surnames must be governed by special rules.

Why code signatures are counted and charged for.

Why the counting of words in foreign languages must be governed by special rules.

Why messages may not be accepted in all foreign languages.

Why the counting of combinations of dictionary words or mutilations of dictionary words, of figures, decimal points, punctuation marks, symbols, and illegitimate combinations of letters must be governed by special rules.

Why special instructions of the sender to the office of destination should be counted and charged for.

Why some abbreviations and words are counted as one word and some as two.

Why special rules govern the counting of contract and dead-head messages to telephone subscribers and non-telephone subscribers.

Rating and pricing.

Why the company has different rates for different classes of telegrams.

The advantage of knowing the rates to important points.

The necessity of being able to determine quickly the rate and price of a message with the help of the tariff book and rate sheet.

The importance of rating and pricing a message correctly.

The importance of including the war tax in the price of a message.

The collection of tolls.

Why caution is necessary in accepting collect messages.

Why it is sometimes advisable to require the sender to pay or guarantee the tolls.

Why the company issues "collect cards" and "identification cards."

Franks, C.A.K. messages, and D.H. messages.

Why the company accepts messages under frank, D.H., or C.A.K.

Why there are different kinds of franks.

Why it is necessary to have special rules to govern the use of franks, D.H. messages, and C.A.K. messages.

Checking messages.

Why the class of service must be indicated.

Why the message should bear the number of the clerk receiving it.

Why it is important to record on the message the time when it was received.

Why a collect message and a paid message are checked differently.

Why it is necessary to indicate in the check extra words counted in the address or signature.

Why special instructions must be indicated in the check.

Why the fact that a message is C.A.K. or D.H. should be indicated in the check.

Why messages containing illegitimate combinations of words, letters, or symbols should have a double check.

Why the check should show "other line" as well as "this line" charges.

Why symbols are used to indicate the various classes of service.

General rules.

- Why the counter clerk should aid patrons in preparing their messages.
- Why the counter clerk should not assume the responsibility of correcting errors in messages. Why the counter clerk should make indistinct words clear by marginal notations.
- Why messages containing profane, obscene, or libelous language should not be accepted.
- Why the counter clerk should make no promises to patrons regarding the transmission or delivery of messages.
- Why it is of advantage to the company to have the signature and address of the sender of a message.
- Why the payment or guarantee of special delivery charges is necessary in certain cases.
- Why messages offered during interruption of lines should be accepted "subject to delay."
- Why all messages should bear the designation of the office, the date, and the designation of the receiving clerk.
- Why all messages received should be forwarded or taken at once to the sending operators.

Cablegrams.

- Why it is sometimes necessary to assist and instruct patrons in writing cablegrams.
- Why the cable service is in operation with only a limited number of countries.
- Why code language is accepted in only full rate messages.
- In which languages deferred half rate messages, cable letters, and week-end letters may be written, and why in no others.
- What advantage there is in using the mail service beyond London on cable letters and week-end letters.
- Why cablegrams should not be accepted collect.
- Why the address and signature as well as the text of a cablegram are counted and charged for.
- Why the address must consist of at least two words.
- Why the number of words, the time filed, and a serial number must be placed upon each cablegram.
- Why the cablegram should be forwarded for transmission as soon as received.

Receiving messages from messenger boys.

The importance of sending a messenger boy back with the message if it is not properly made out.

Why it is especially important that the money transaction be attended to carefully in the case of messages brought in by messenger boys.

Money transfers.

Why requests to transmit money must be made by written application.

The importance of having the application made out correctly and fully.

The importance of having persons transmitting money understand the two methods of identifying the payee.

Why it is necessary to have the sender sign the waiver if personal identification of the payee is not required.

Why the application blank must be numbered and timed, and why it must bear the designation of the receiving clerk.

The necessity for accuracy in figuring transfer charges and telegraph tolls on money transfers.

Why a receipt should be given the transferor.

Why the receiving clerk should see that the money transfer clerk gets the application promptly.

Handling cash.

Why a single individual should have charge of the cash.

The convenience of having the cash arranged in the cash drawer.

The economy of time in following a certain procedure in taking a patron's money, making the change, and counting it back.

The importance of keeping a record of the amount of cash received for each paid message.

Why it is necessary to balance the cash in the drawer against the cash as shown by the cash sheet.

Delivering messages over the counter.

The importance of getting a message out of the files quickly. Why messages often are not found in the files.

Why a delivery sheet should contain data regarding the delivery of a message.

Why the company should have a signature for every message delivered.

Why the company files and keeps the delivery sheets.

Regarding money transfers.

Why the counter clerk should not assume the responsibility of paying out money.

Rendering other services to patrons and callers.

The importance of giving patrons quick messenger service.

Why courteous treatment should be given those who make complaints about the service rendered by the company.

The importance of being able to give information in regard to:

The geographical extent of the company's service.

The connections with other lines where these are necessary.

The difference in time between points in this country and between local and foreign points.

The location of important streets, buildings, and firms.

The opening and closing time of various branch offices.

The various classes of service for messages.

All other services rendered by the company, including money transfer, messenger, clock, ticker, etc.

(Space left for additions.)

TUBE AND COPY CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: delivery department of main and branch telegraph offices.

Length of learning period: about two weeks.

Entrance requirements:

Age: sixteen or over.

Sex: usually female.

Previous skill or training: none.

Personal qualifications: must be observant, neat, and careful.

Physical qualifications: ability to pass the physical examination given by the company.

Educational qualifications: ability to pass the educational test given by the company.

II. DUTIES*As tube attendant.*

Receive messages coming to the delivery department through the pneumatic tubes from the traffic department, the service department, and the receiving department.

Remove messages from the carriers and set the carriers aside in their proper places.

Unfold and examine messages.

Watch for errors in routing messages and re-route them, sending them out through the tubes to the proper destination.

Pass all cablegrams, telephoned messages which are to be mailed, and all service communications, immediately to the route clerk.

Number the collect messages and the paid messages, using a special numbering stamp for each.

As copy clerk.

Make water copies of the messages after numbering them.

Pass the collect messages to the clerk handling the collect message register.

Pass the paid messages to the route clerk.

Smooth the wrinkles out of the water copies and file them alphabetically as time permits.

As relief clerk.

Relieve the call circuit clerk, the collect register clerk, or the delivery route clerk.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

As tube attendant.

Operating the tubes.

- Which are the receiving tubes and which the sending tubes.
- How to tell when a carrier has come in through the tubes.
- How to release the carrier from the tube.
- How to open the carrier and remove the contents.
- How to fold messages and insert them in the carrier.
- How to close the carrier and insert it in the tube.
- The location of the terminal points of each tube.
- The importance of careful handling of the tubes and carriers.

Receiving messages through the tubes.

- How to interpret the check of a message, so as to determine whether the message is paid or collect.
- How to recognize cablegrams, telegrams, service messages, and interdepartmental communications.
- How to recognize a telephoned message which is to be mailed.
- What disposition to make of each class of communications received.
- Sufficient knowledge of the territory served by the delivery department of each branch to detect incorrect routing.
- The importance to the company and to the addressee of being able to detect errors in the routing of messages for delivery.
- Which numbering stamp to use for collect messages, and which for paid messages. How to recognize the different numbering stamps.
- Why one stamp is used for collect messages and another for paid messages. The importance of using the correct stamp.
- Where to stamp the delivery number upon the message blank.

As copy clerk.

- How to operate a copying press, either electrically or by hand.
- How to lay the tissue sheets upon the messages to be copied.
- How to fold the messages and tissue sheets together and insert them between the rolls of the copying press.
- How to unfold the messages after they have come through the press.
- How to lift the tissue sheets, without tearing them, and lay them aside for later handling.
- Why the telegraph company must have a copy of each message.

How to smooth the wrinkles out of the tissue sheets.

How to file the tissue sheets alphabetically, according to the system used in the office.

Relief work.

See Section III of the analyses of the work of the call circuit clerk, the collect register clerk, and the route clerk.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The tube and copy clerk fills one of the minor positions in the Delivery Department of main offices and branch offices. There are several opportunities for promotion from this position. Two probable lines of promotion are shown below.

1

One line of promotion.

From tube and copy clerk to:

- (a) Call circuit clerk.
- (b) Collect register clerk.
- (c) Delivery route clerk.

2

Another line of promotion.

From tube and copy clerk to:

- (a) Call circuit clerk.
- (b) Collect register clerk.
- (c) Receiving clerk.

CALL CIRCUIT CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: delivery department of main telegraph offices and large branch offices.

Length of learning period: about two weeks.

Special hazards or health risks: none.

Entrance requirements:

Age: sixteen or over, preferably eighteen.

Sex: usually female.

Previous skill or training: none.

Personal qualifications: must be observant, neat, and careful.

Physical qualifications: ability to pass the physical examination given by the company.

Educational qualifications: ability to pass the educational test given by the company.

II. DUTIES*In handling circuit calls.*

The pick-up service.

As each call is registered in the box, tear off the ticket tape and note the number registered.

Look up the number in the index to get the name and address of the person making the call.

Enter on the messenger call register the number of the ticket, the name of the person sending in the call, the time of receiving the call, and the zone in which the person is located.

Call a messenger, give him the name and address of the person, and enter his number on the messenger call register.

When the messenger returns, enter in the register the time of his return and the number of messages brought in.

Rate, price, and check the messages, and send them to the traffic department for transmission.

Handling errand service requests.

Receive calls over the telephone, at the desk, or through the tubes from officials, for messengers for errand service.

Enter on the messenger call register the number of the messenger, the name of the person making the call, whether the call is collect or charge, or if received at the desk, whether paid or collect, the amount, and the zone.

Enter on the messenger call blank the date, the name of the person making the call, the place to which the messenger is to go, the charges, and whether paid or collect.

Call a messenger, enter his number on the blank, hand him the blank, and tell him where to go.

When the messenger returns, see that his blank has been properly signed, and that the amount of cash turned in is correct.

Check the cash as shown on the messenger call register at the end of the day with the cash in the drawer and turn the amount over to the cashier.

As relief clerk.

Relieve the tube clerk, the collect register clerk, or the route clerk, as occasion demands.

(For a detailed list of the duties see Part II of the analysis of the jobs in question.)

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The call circuits.

How to read the ticker tape markings by which calls are registered.

How to find the name and address of the person calling by looking up in the index the number corresponding to that printed on the tape.

The extent and importance of the call circuit service to the company.

The importance of the call circuit service to the patrons of the company.

The messenger call register.

The data which should be entered on the messenger call register.

How to get the necessary data.

The importance to the accounting department and to the company of accurate and complete data on the messenger call register.

The messenger call blank.

The information which should be entered upon the messenger call blank.

The importance of carefully checking the messenger call blank when the messenger returns.

What happens when the information on the messenger call blank is incomplete or inaccurate.

The message blank.

The various classes of telegrams and cablegrams, and the rules governing the use of each.

How to rate, price and check a message. (See pages 41 to 44 for details.)

The importance to the accounting department and to the company of correct rating, pricing, and checking.

Errand service requests.

How to receive a request for errand service.

What information should be secured from the person making the request.

The importance of getting all the information needed for the proper performance of the service.

How to speak distinctly over the telephone.

Relief work.

See Part III of the analyses of the jobs of tube clerk, collect register clerk, and route clerk.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The following are suggestive of the lines of promotion open to the call circuit clerk.

1

One line of promotion.

From call circuit clerk to:

(a) Collect register clerk.

(b) Delivery route clerk.

2

Another line of promotion.

From call circuit clerk to:

(a) Collect register clerk.

(b) Receiving clerk.

COLLECT REGISTER CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: delivery department of large telegraph offices.

Length of learning period: about two weeks.

Entrance requirements:

Age: sixteen or over, preferably at least eighteen.

Sex: male or female, usually female.

Previous skill or knowledge: knowledge of the city as to location of streets and numbering system.

Physical qualifications: pass physical examination.

Educational qualifications: pass educational examination.

II. DUTIES

In handling the collect register.

Receive collect messages from the tube clerk and remove the tissue copies.

Enter on the "received collect register" the delivery number, the tolls, whether charge or cash, name of addressee, name of person to be charged if other than addressee, telephone number if tolls are to be charged to such number, and name of branch office making delivery.

Enclose the message in a "charge" envelope and write the charges in the proper space.

Make out a delivery sheet and call a messenger.

Enter the number of the messenger upon the "received collect register" and upon the delivery sheet, and hand the message and delivery sheet to the messenger.

When messenger returns receive any cash collected, see that the delivery sheet has been properly signed, and enter the cash upon the received collect register.

Pigeonhole the delivery sheets for the accounting department.

Arrange and file alphabetically the copies of the messages.

At the end of the day balance the cash received against the total of the cash items in the received collect register, and turn in the cash.

Check the received collect register sheets of the various branch offices the first thing each morning, and turn them over to the accounting department.

As relief clerk.

Relieve the call circuit clerk, the tube clerk, or the route clerk, as occasion demands.

(See Part II of the analyses of these jobs.)

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The received collect register.

What data must be entered upon the received collect register sheets.

Where or how to get this data.

The importance to the company of accurate and complete information on the received collect register.

How to check the received collect register sheets from the branch offices.

The delivery sheet.

The data required on the delivery sheet.

The importance of the delivery sheet to the accounting department.

Why the delivery sheets are numbered.

What to do if a delivery sheet is lost.

How to guard against alteration of the delivery sheet.

The necessity for entering the messages on the delivery sheet in the order in which they are routed for the messenger.

The form of a message.

The different parts of a message.

How to interpret the sending marks and the check of a message.

The importance of special instructions in the check.

Folding and inserting in envelope.

How to fold messages and insert them in envelopes in such a way that the address shows through the window of the envelope.

The reason for having one form of envelope for paid messages and another for collect messages.

The importance of sealing every envelope containing a message.

Route planning.

The importance of planning the route so that the messenger can make delivery in the shortest time.

Knowledge of the location of streets.

The system used in numbering the houses.

The location of the principal buildings and important firms.

How to use the city street map, city directory, and telephone directory.

The fair distribution of work among messengers.

Collect messages.

How to mark the envelope containing a collect message.

Ways of keeping an additional record of collect messages besides the record on the delivery sheet.

The importance of carefully checking money turned in by messengers.

Undelivered messages.

The sources of information available for locating addressees.

The importance of making every reasonable effort to locate and notify the addressees of undelivered messages.

The routine to be followed if addressee cannot be located. What to do with the undelivered message.

The procedure if addressee is located. Circumstances under which it would be inadvisable to forward or relay a message, as determined by the nature of the message.

As relief clerk.

See Section III of the analyses of the jobs of the call circuit clerk, the tube clerk, and the route clerk.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The following are two lines of promotion open to the collect register clerk.

1

One line of promotion.

From collect register clerk to:

(a) Delivery route clerk.

(b) Assistant delivery supervisor.

2

Another line of promotion.

From collect register clerk to:

(a) Receiving clerk.

(b) Money transfer clerk.

DELIVERY ROUTE CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: delivery department of main offices and large branch offices.

Length of learning period: learn while serving as messenger or telephone recorder.

Special health risks: none.

Entrance requirements:

Age: usually over twenty-one.

Sex: male.

Special skill or training: experience as messenger boy.

Personal qualifications: reliability; ability to plan a route; some executive ability.

Physical qualifications: must pass physical examination prescribed for all employees other than messengers.

Educational qualifications: ability to read, write, and perform simple arithmetical calculations.

II. DUTIES

In regard to forms, blanks, and records.

The delivery sheet.

Prepare delivery sheets for all messages delivered by messenger, marking thereon message numbers, charges if any, whether answer is required, number of the messenger making delivery, time of departure of messenger, and zone in which delivery is to be made.

Arrange these in order when turned in by messengers for sending to accounting department.

If a delivery sheet is lost report the matter to the accounting department.

The messenger record blank.

Keep a record of the work of each messenger, using a separate blank for each messenger and for each day's work.

The messenger force sheet.

Make up daily from the messenger record blanks the messenger force sheet, showing in itemized form the total amount of work done by the messenger force for the day.

Turn this sheet over to the delivery supervisor.

In regard to the supervision of messengers.

Maintaining order.

Maintain, as tactfully as possible, reasonably good order among messengers waiting their turn to make delivery.

Assisting messengers.

Advise and assist messengers when difficulties arise in delivering messages or in locating addressees.

See that messengers are provided with message blanks, delivery notices, rate sheets, pencils, etc.

Recommending appointment.

Interview and test applicants for the position of messenger.

Recommend or refuse to recommend applicants for appointment.

Recommending dismissal.

Recommend for dismissal any messenger not giving satisfactory service.

In regard to telegrams and cablegrams.

Classes of service.

Answer inquiries regarding the various classes of telegrams and cablegrams and the rules regarding their delivery.

The form of a message.

Answer inquiries regarding the different parts of a message and how to interpret the sending marks and the instructions in the check of a message.

In regard to preparation for delivery.

Folding and inserting in envelopes.

Fold message properly and insert it in the envelope in such a way that the address will show through the window of the envelope.

Use the "paid" envelope for all paid messages, and the "charge" envelope for all messages on which tolls are to be collected.

Seal each envelope after inserting the message.

Route planning.

Arrange the envelopes in order for delivery by the shortest route.

Observe the regulations in regard to sending messengers to places which they are forbidden by law to enter.

Delivery sheets.

Enter the messages on the delivery sheet in the order of delivery, and time the delivery sheet.

Call the messenger whose turn it is, enter his number upon the delivery sheet, and hand the sheet and the corresponding messages to him.

In regard to collect messages.

Mark on the envelope the word "collect" followed by the amount to be collected.

Make note on a slip of paper of the number of the message, the amount to be collected, and the messenger's number.

Check the money returned by the messenger against these slips and then destroy the slips.

In regard to refusals to pay tolls.

If addressee of a collect message or of one upon which delivery charges have been guaranteed refuses to pay the tolls, instruct the messenger to deliver the message nevertheless.

Notify the sending office of the facts by post card (by service message to points in Mexico), stating the amount to be collected in case of a "special delivery" message.

If collect message is an answer to one sent C.A.K. or D.H., charge the tolls to the addressee's frank.

If, after the refusal to pay, the tolls are later collected, notify the sending office by mail.

If the message itself is undelivered, notify the sending office by service message.

In regard to messages to addressee on a rural free delivery line.

If telephonic delivery has been found impracticable and special delivery charges have been paid or guaranteed, send out the message by special delivery at once.

If special delivery charges have not been paid or guaranteed, mail the message for rural free delivery at once. If message is of such a character that mailing would defeat its purpose, send a service message to the office of origin for prepayment or guarantee of special delivery charges. If sending office is unable to collect, or if reply is not received at once, mail the message. If special delivery is made subsequently, write "duplicate" across the face of the copy subsequently delivered.

In regard to "special delivery" messages.

Report to the sending office by post card the actual special delivery charges on messages, the charges on which have been prepaid or guaranteed.

When delivery has been effected without expense or at a less expense than the amount prepaid, notify the sending office by post card.

When special delivery is necessary and the charges have not been prepaid or guaranteed, send a service message to the sending office for a guarantee. If sending office is unable to collect or if reply is not received at once, mail the message to the addressee. Write "duplicate" across the face of another copy subsequently delivered.

In regard to messages in care of hotels.

When messages are addressed "try hotels," endeavor to locate addressee by telephone before attempting delivery by messenger.

When messages are addressed in care of specific hotels instruct messengers to deliver the messages to the clerk at the particular hotel, unless guest has left the hotel.

Instruct messenger to inquire for and bring back uncalled-for messages unless addressee is scheduled to arrive later.

In regard to undelivered messages.

Consult the city directory, telephone directory, or employ any other available means to locate the addressee of an undelivered message. Mail a post card to the addressee and notify the sending office by service message of the fact.

In case of messages addressed to hotels, forward the message "collect" if whereabouts of addressee can be ascertained, unless character of the message indicates that forwarding would serve no useful purpose.

In case of messages addressed to passengers on trains, relay the message prepaid and notify sending office by service message.

File all undelivered messages together with the respective envelopes for future reference, and notify sending office by service message if undelivered message is of an urgent nature; otherwise make notification by post card.

In regard to special cases.

Lay aside the copy of the message until the required service has been performed.

When the required service has been performed, such as "reporting delivery," file the copy of the message.

When the words "an answer" appear in the address, refer to the original message to which it is an answer for the address.

When request is made to "report delivery" respond to the request by a collect message addressed to the sender of the original message, stating the time of delivery, or if not delivered, the reason.

In regard to errors in messages.

Take steps to secure a correct copy by service message.

If correction can be secured quickly, hold the message; if not, deliver the message with the words "delivered subject to correction" endorsed upon it.

When correct copy is received endorse it "corrected copy," and deliver it.

If no error is found, send a notice to the addressee to that effect.

In regard to relief work.

Relieve or assist the counter clerk, tube attendant, call circuit clerk, or telephone recorder in case of necessity.

In regard to furthering the interests of the company.

Be always on the alert to render the very best service to patrons.

Be always on the alert to protect and further the interests of the company at all times and under all circumstances.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

Forms, blanks, and records.

The delivery sheet.

The data required on the delivery sheet.

The importance of the delivery sheet to the accounting department.

Why the delivery sheets are numbered.

What to do if a delivery sheet is lost.

How to guard against alteration of the delivery sheet.

The necessity for entering the messages on the delivery sheet in the order in which they are to be routed for the messenger.

The messenger record blank.

The data required on the messenger record blank.

The importance of this blank to the accounting department.

What to do with the blanks at the end of each day.

Why such a record is necessary; the importance of having accurate information on the messenger record blank.

The messenger force sheet.

The data required on the messenger force sheet.

The use made of this record in the accounting department.

How and when to make up this record.

Supervision of messengers.

Maintaining order.

How to maintain tactfully reasonable order among messengers awaiting their turn to deliver messages.

The importance of courtesy, firmness, and tact in handling messengers.

Assisting messengers.

How to make messengers feel the necessity of making the maximum effort to find addressees.

What sources are available for information regarding local addressees. How to use these sources of information.

Recommending appointment of messengers.

How to interview applicants for the position of messenger.

What points to notice while asking questions.

The minimum qualifications for a messenger.

The many reasons why the telegraph company needs well qualified messengers.

The procedure to be followed in recommending the appointment of a messenger.

Recommending dismissal of messengers.

What constitutes minor infractions of rules or neglect of duties.

What constitutes major infractions of rules or neglect of duties.

When a number of minor infractions of duty constitutes ground for recommending dismissal.

Telegrams and cablegrams.

Classes of service.

What the various classes of telegrams and cablegrams are.

The rules regarding the delivery of the various classes of telegrams and cablegrams.

What to do with day letters, night letters, and cablegrams.

The importance of prompt handling of straight messages.

Why the route clerk must read all messages to be delivered.

The form of a message.

The different parts of a message.

How to interpret the sending marks and the check of a message.

The importance of special instructions in the check.

Preparation for delivery.

Folding and inserting in envelopes.

How to fold messages and insert them in envelopes in such a way that the address shows through the window of the envelope.

The reason for having one form of envelope for paid messages and another for collect messages.

The importance of sealing every envelope containing a message.

Route planning.

The importance of planning the route in such a way that the messenger can make delivery in the shortest space of time.

Knowledge of the location of streets.

The system used in numbering the houses.

The location of the principal buildings and important firms.

How to make use of the city street map, city directory, and telephone directory.

The fair distribution of work among messengers.

The delivery sheet.

See above, under "forms, blanks, and records."

Collect messages.

How to mark the envelope containing a collect message.

Ways of keeping an additional record of collect messages besides the record on the delivery sheet.

The importance of checking carefully money turned in by messengers.

Refusals to pay tolls.

Why messenger should deliver a message to an addressee who refuses to pay tolls.

The routine to be followed in notifying the sending office of a refusal to pay tolls.

When this notification should be by service wire and when by mail.

Messages in care of postoffice.

Why messages are sometimes addressed for delivery through the postoffice.

Why the route clerk should know the approximate time for distributing the mail in the postoffice or to the mail carriers.

The circumstances under which delivery in care of the postoffice might defeat the purpose of the message.

What the route clerk should do when delivery through the postoffice seems inadvisable.

Messages to address on a rural free delivery line.

Why telephonic delivery should be attempted.

What to do if telephonic delivery is impracticable and charges have not been paid or guaranteed.

Circumstances under which mailing might defeat the purpose of a message.

Circumstances under which a message should be mailed.

“Special delivery” messages.

The routine to be followed in reporting to the sending office when charges have been prepaid or guaranteed.

What to do if charges have not been prepaid or guaranteed and special delivery is found to be necessary.

When to resort to delivery by mail.

Messages in care of hotels.

Why it is advisable to endeavor to locate the addressee by telephone before attempting delivery by messenger.

The importance of having uncalled-for messages collected at regular intervals and brought back to the telegraph office.

Undelivered messages.

The sources of information available for locating addressees.

The importance of making every reasonable effort to locate and notify the addressees of undelivered messages.

The routine to be followed if addressee cannot be located. What to do with the undelivered message.

The procedure if addressee is located. Circumstances under which it would be inadvisable to forward or relay a message, as determined by the nature of the message.

Special cases.

How to find the address when the words “an answer” appear in the address.

The procedure when a request is made to “report delivery.”

Errors in messages.

The procedure when errors appear to have been made in messages.

The responsibility of the delivery route clerk in detecting errors and protecting the interests of the company and its patrons.

MAIL BUREAU CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: central mailing bureau.

Length of learning period: brief.

Special hazards: none.

Entrance requirements:

Age: sixteen or over.

Sex: male.

Previous skill or training: none, except that gained on the job.

Personal qualifications: alertness, accuracy, and neatness.

Physical qualifications: pass special physical examination.

Educational qualifications: eighth grade.

II. DUTIES*In case of incoming mail.*

Receive incoming company mail in bundles or express packages, and sort letters according to department of destination.

Open and sort incoming business letters (except "personal") according to department of destination.

Distribute all such mail, together with unopened personal letters, to the proper offices.

In case of outgoing mail.

Call at various departments at specified hours and receive the outgoing mail matter.

Sort all outgoing company mail according to offices of destination, into various classes for mailing, as directed.

Arrange and pack this sorted mail into proper packages of convenient size, and bind up, or seal carefully, according to classification.

Weigh the packages, figure the rate, and affix proper postage, according to class of mail matter.

See that address is correctly affixed on each package.

Fold, enclose in envelopes, seal and stamp outgoing letters addressed to individuals.

Fold, enclose and stamp circulars and other miscellaneous matter.

See that all outgoing mail is delivered to collection box at proper hours.

Assist file clerks in office whenever necessary, and perform various office boy duties for commercial department officials as required.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The company.

The name and location in the building of all departments, and the personnel of each office.

The names and addresses of the various other division and district offices, and of the more important branch offices of the local division, and their official personnel.

Postal and express regulations.

The rules as to proper wrapping, packing, or sealing of each class of mail matter, both regular and parcel post, the maximum size and weight of package allowed, position of address, "return," postage, etc.

The importance of proper wrapping, packing, sealing, and weighing.

The rates for each class of regular mail, the parcel post zoning rules, and how to secure information from general postal rule books.

The use of scales, and the method of computing both postal and express rates, from the weight and destination of the package.

The procedure to be followed in registering or insuring mail matter, or sending by special delivery.

Arithmetic.

Accuracy in addition and multiplication, in computing regular postage rates and counting stamps.

The use of tables or calculators in computing parcel post rates.

Care in noting scale readings.

The importance of accuracy in figuring postal or express charges.

Sorting.

How to sort letters, documents, and other papers according to the office of destination.

The importance of great care in the sorting work, so that no letters will be delayed by being enclosed in the wrong package.

The reasons for classifying letters in certain groups, and the significance of using various classes of postal and express service in forwarding.

IV. PROMOTIONAL POSSIBILITIES

With the mail bureau clerk, as with the office boy, promotion may be along any one of a large number of lines, depending upon the aptitude of the particular worker and the vacancies which may occur. The mail bureau clerk is in the office of the general manager and therefore his promotion may be into any one of the four departments of the company.

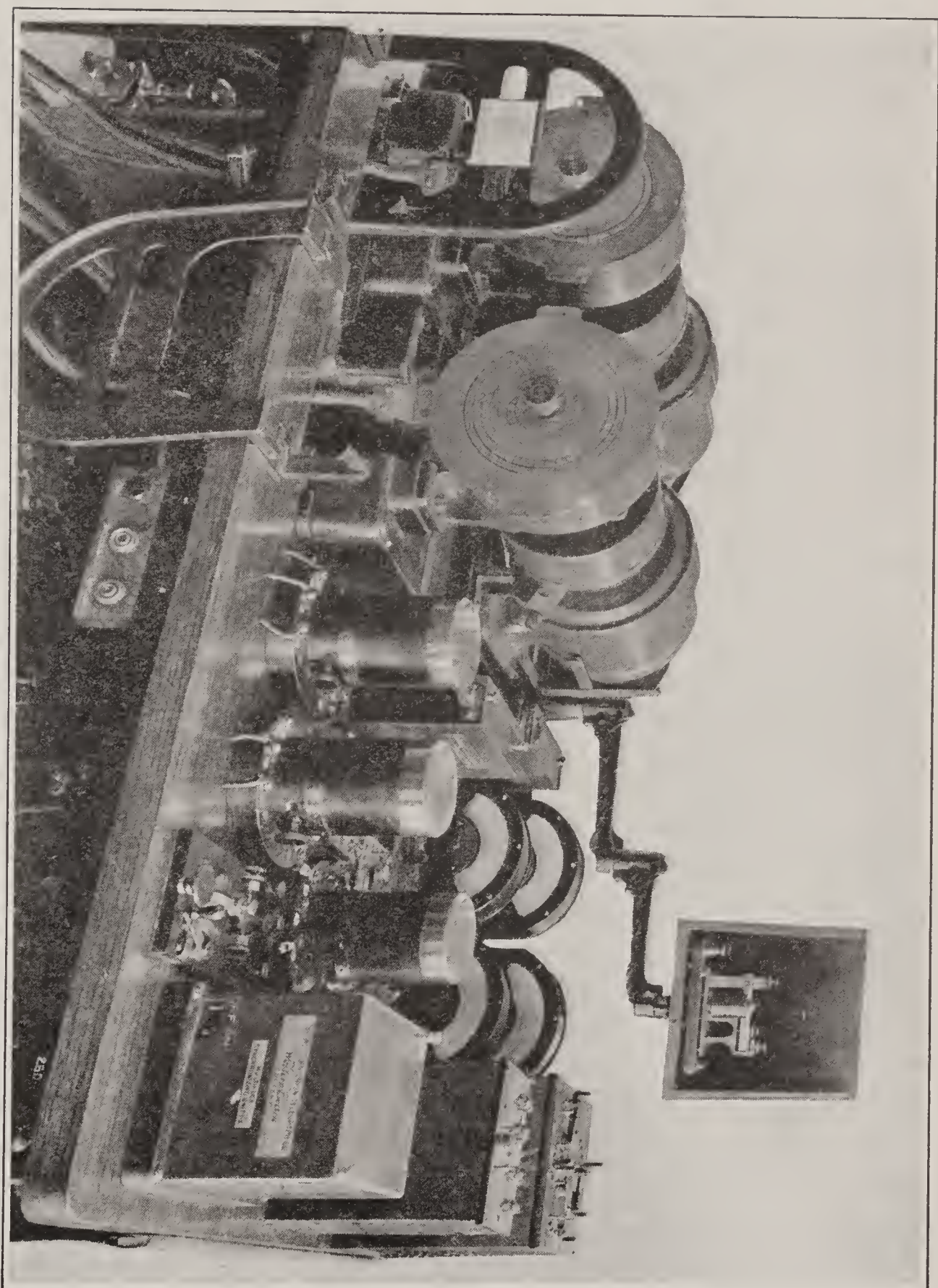
THE TRANSMISSION OF MESSAGES

When the receiving clerk in the Commercial Department has checked and timed a message, she places it in a carrier which she inserts in a conveniently located pneumatic tube. Through this tube the message is conveyed in a few seconds to the Central Distributing Center of the Traffic Department. Here a tube attendant removes the message from the carrier, and places it upon a belt which carries it quickly to a table at which are seated a number of route clerks. One of these route clerks slips the message off the belt onto the table and notes its destination and classification. If the message is going to a place served by automatic telegraph, the route clerk places upon the blank the initial of its city of destination or of the place through which it must be relayed to its destination. If the message is going to a place served by Morse telegraph, the route clerk places upon the blank the number of the table at which the operator sits who serves the wire to that place. This routing operation takes only a few seconds, and the message is then placed upon the belt which carries it to the part of the operating room in which the operators sit who serve the wires to the place of destination of the message.

When the message drops from the belt on a table in the proper place in the operating room, a route aid picks it up, notes its classification, destination, and whether it is to go by automatic or Morse telegraph, and places it in the proper rack. A distributing clerk picks it up and carries it at once to a certain sending operator, placing it under an automatic timing stamp. In a few minutes it is being sent over the wire to its destination.

As an operator receives a message coming to the local city, she immediately places it upon a belt on which it is carried to the Central Distributing Center. The route clerk who receives the message in the Central Distributing Center notes the name and address and the character of the message. She decides whether the message may be telephoned out, or through which of the many branch offices it should be delivered. If it is to be telephoned, she places it upon the "telephone" belt which carries it to the telephone operators. If it is to be delivered, she places upon the blank the initials of the branch office and sends it over a belt to a tube attendant. The tube attendant notes the branch office initial, selects the carrier having the proper color combination, inserts the message, and sends it out through the pneumatic tubes to the branch office for delivery.

When a route clerk in the Central Distributing Center places a message upon the "telephone" belt it drops in a few seconds upon a



The multiplex distributor is sending and receiving eight messages at the same time over one wire between San Francisco and Denver. The wire carries eight words every second.

table in the Telephone Bureau. Here a telephone aid picks it up, notes the name and address, and determines to which telephone operator it should be taken. If it is to be handled by one of the operators at the public board, the operator immediately calls up the addressee and reads the message to him. If it is to be telephoned to a branch office of the telegraph company, one of the branch operators reads it in code to the operator in the branch office, who takes it down on the typewriter.

When a person desires to telephone a message to the telegraph company for transmission a public recording operator answers the telephone and types the message. She then places the message upon the belt which conveys it to the Central Distributing Center. From there it is sent at once to a telegraph operator for transmission.

In the transmission of many thousands of messages every day it is inevitable that difficulties should arise because of faulty address, inability to find the addressee, misunderstood messages, etc. To take care of these and similar matters, there is a branch of the Traffic Department called the Service Department. A sequence clerk from the Service Department goes at frequent intervals to the operating room and picks up the messages which have been sent by the telegraph operators. These she brings to the Service Department. A record is made of the business to certain large offices. The telegrams are then separated into classes, examined, stamped, and filed for a period of forty-eight hours. When an inquiry comes in regarding any of these telegrams it is sent to the Service Department. A searcher file clerk takes the inquiry from the belt, looks up the message referred to, and takes the communication and the message to a service clerk. The service clerk writes a service telegram regarding the matter and forwards it on the belt to the operating room, where it proceeds through the regular channels to the telegraph operators. After forty-eight hours the telegrams temporarily filed in the Service Department are taken to the Bookkeeping Department for permanent filing.

The work described above gives rise to the Traffic Department organization, as outlined on page 13 of this bulletin. Analyses of the junior positions of Tube Attendant, Route Aid, Route Clerk, Distributor, Automatic Operator, File and Copy Clerk, Telephone Recorder, Sequence Clerk, File Clerk, and Searcher File Clerk, and of the higher positions of Morse Operator, Route Supervisor, Service Clerk, Statistical Clerk, Claim Clerk, and Timekeeper, as illustrative of those to which juniors may be promoted, will be found on the following pages.

TUBE ATTENDANT**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: in telegraph offices, where tube system is installed.

Length of learning period: very brief—a few hours.

Special hazards: none.

Entrance requirements:

Age: sixteen or over, older for night work.

Sex: male or female; male for night work.

Previous skill or training: none.

Personal qualifications: neatness, carefulness, attentiveness.

Physical qualifications: pass physical examination.

Educational qualifications: seventh grade or higher.

II. DUTIES*In handling incoming messages.*

Receive messages in carriers from branch offices via pneumatic tube system.

Remove messages from carriers.

Time the messages with automatic timing stamp.

Send the messages via the belt to the route clerks.

Send empty carriers on belt to clerk handling outgoing messages.

Relieve the clerk who is sending.

In handling outgoing messages.

As carriers come from clerk handling incoming messages, arrange them by color in boxes near compartments in which outgoing messages are placed.

Pick up messages coming over belt.

Observe penciled initials or numbers on message, to determine branch office, or official to whom message should be sent.

Fold properly for inserting in carrier.

Select proper carrier, insert message, close carrier, and send through proper tube to branch office, or official, as indicated by the initials.

If messages come over belt too rapidly for immediate sending, assort them into racks bearing initials of branch offices, or officials.

When the run of messages over the belt is slower, send out the accumulated messages.

While sending, observe initials and address of messages to see that route clerks have not included messages for other than local distribution.

If such errors in routing are found, place messages on proper belt, or refer them to the supervisor.

Relieve the clerk who is receiving; relieve route clerk.

When changing to relief work, take time card from rack, have supervisor indicate time of leaving regular duties, and when returning, hand card back to supervisor for indicating time of return to regular duties.

(Space left for additions.)

Other duties.

Send "test carrier" through each tube every ten minutes.

If "test carrier" is not immediately returned, notify supervisor who will trace the carrier by phone.

When the "test carrier" is returned, place it beside the proper tube. Send "good morning" and "good night" message blank through tube to each branch office.

When blank is returned with time of opening and closing inserted, check it against list of offices with opening and closing hours and hand it to supervisor.

Do errand work for supervisor as requested.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The tube system.

How to remove incoming box carriers from the pneumatic tubes.

How to place outgoing box carriers in the pneumatic tubes.

How to insert message blanks in the carriers and remove them from the carriers.

The importance of care in placing messages in the carriers and in removing them from the carriers.

The importance of inserting the correct end of the carrier in the tube.

The branch offices having tube service, and how to identify the carrier and tube serving each branch office.

The message blank.

How to fold a message blank properly for inserting in the carrier.

The routing marks on the messages and their meaning, so as to be able to send messages to proper destinations.

The branch offices.

The names of the branch offices, and their designations (e.g. VN for Van Ness).

The territory served by each branch office.

The importance of comparing the address with the routing so as to detect errors made by the route clerks.

The test carriers.

The procedure in sending and receiving test carriers.

The reasons for sending test carriers through the tubes.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The tube attendant occupies one of the entering positions in telegraph offices where the tube system is installed. From this position there are various opportunities for promotion, two of which are listed below.

1

One line of promotion.

From tube attendant to:

(a) Route aid.

(b) Distributor.

(c) Route clerk.

(d) Route supervisor.

2

Another line of promotion.

From tube attendant to:

(a) Route aid.

(b) Distributor.

(c) Statistical clerk.



WESTERN UNION OFFICE, SAN FRANCISCO

The central point of the pneumatic belt system. Eight thousand messages an hour pass this point.

ROUTE CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: division, district, or relay offices.

Length of learning period: about two weeks.

Entrance requirements:

Age: sixteen or over.

Sex: male or female.

Previous skill or training: route clerks are experienced route distributors.

Personal qualifications: retentive memory.

Physical qualifications: pass special physical examination.

Educational qualifications: seventh grade or higher.

II. DUTIES*In handling messages for outside towns.*

Receive messages as they come over the belt from the tube clerks, or in case of relayed messages, from the operators.

Observe the destination and character of each message.

If message is to be sent via the automatic telegraph, place in the upper right hand corner the initials of the city to which it is to be sent directly, or through which it is to be relayed to destination.

If message is to be sent via the Morse telegraph, place in the upper right hand corner the number of the table on which the wire is located which serves the city to which it is to be sent directly, or through which it is to be relayed to destination. (This is called routing the message.)

If in doubt as to the routing, refer to card index showing initial or number for each town.

If unable to determine the routing by reference to the index, hand the message to the supervisor.

After routing the message, place it on the proper belt for sending to the distributor.

In handling messages for local delivery.

If message is for a private individual, or for a firm which requests telephone delivery, look up the phone number of the addressee in the directory, place the number upon the message and send the message over the "telephone" belt, unless it is a message of condolence or death, or for any other reason is not to be telephoned.

- If addressee has no telephone number, place a check mark upon the message and send it on the belt to the proper branch for delivery.
- If message is for a local firm, indicate with pencil in upper right hand corner the branch office through which it is to be distributed.
- In case of doubt as to branch office to which message is to be sent, refer to card index for information. (The local card index shows the names of firms, their street address, the branch office which should deliver messages to them, and instructions for disposition of messages coming in after hours. The card index for outside towns shows for each town the point through which messages to it are to be relayed, also whether it is served by automatic or Morse.)
- Place upon the message the initial which indicates the branch office to which it is to be sent for delivery.
- Send the message over the belt to the tube clerk who is sending messages to offices served by tubes, or on telephone belt if message goes to an outlying branch.
- In case message is for an official, send over belt to tube clerk who is sending messages, or on telephone belt if official is not on tube system.
- Perform the following occasional duties:
- Relieve tube clerks, distributors, or route aids.
 - Do errand work for supervisor as requested.
 - When changing to relief work, take time card from rack, have supervisor indicate time of leaving regular duties, and when returning, hand card back to supervisor for indicating time of return to regular duties.
 - When changes of address of local firms or changes in routing outside messages are sent in, memorize such changes immediately and sign a card showing responsibility for subsequent routing of messages.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The branch offices.

The names of the branch offices and their designations (e.g., VN, Van Ness).

The territory served by each branch office.

The opening and closing hours of each branch office.

The routing of messages for transmission.

The cities served by Morse circuits.

The cities served by the automatic circuits.

The cities served by both the automatic and the Morse circuits.

The relay points to which messages are routed for various localities.

The location and number designation of the tables at which the operators sit who serve each town.

How to use the index when in doubt as to the routing of messages.

Which distributing belts serve the various tables at which the wires for each city are located.

How and where to indicate the routing on the message blank.

The difference in the method of indicating the routing on messages for automatic and for Morse transmission.

The routing of messages for local delivery.

Which messages should be routed to the Telephone Department.
Which messages should not be routed to the Telephone Department.

Which messages should be routed to the Service Department.

Which messages should be routed to the Delivery Department.

Which messages should be routed to each individual branch office as indicated by the address.

How and where to indicate the routing on the message blank.

How to use the index for finding the addresses of firms in the city.

How to use the telephone directory in routing messages to the Telephone Department.

The importance of careful routing of messages.

The value to the company of a careful route clerk.

The distribution of messages.

See Part III of the analysis of the Route Distributor.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

Practically the only promotion possible for the route clerk is to the position of route supervisor. She could, however, at a temporary sacrifice of part of her salary, enter the operators' school and become an automatic operator.

ROUTE AID

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: traffic department of division, district, or relay offices.

Length of learning period: a few days.

Entrance requirements:

Age: sixteen or over.

Sex: male or female, usually female.

Previous skill or training: none.

Personal qualifications: retentive memory.

Physical qualifications: ability to pass the physical examination given by the company.

Educational qualifications: ability to pass the educational and mental test given by the company.

II. DUTIES

Sort messages as follows:

Receive messages through the drop from the distributing belt on which they have been placed by the route clerks.

Separate the messages for the automatic operators from those for the Morse operators.

Place the messages for the automatic operators in racks according to destination, as indicated by the initials written on the blank by the route clerk.

Place the messages for the Morse operators in racks according to the numbers written on the blanks by the route clerk.

Distribute the messages for the Morse operators as follows:

Take the messages from a rack bearing a certain number and proceed with them to the Morse operators at the table bearing the corresponding number.

Place the messages on the hooks beside each operator.

When distributing messages to "overland" or independent-way operators, place the day messages, day letters, and night letters each on a separate hook.

When distributing messages to operators at the railroad way, unless unit is specially marked, place all messages on one hook, day messages on top, day letters next, and night letters on the bottom.

Observe the routing and the destination of messages while distributing, in order to detect errors in routing.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The sorting of messages.

How to distinguish the messages for the automatic operators from those for the Morse operators, by observing the routing marks and the destination.

The destinations which are served by the automatic operators and those which are served by the Morse operators.

Which racks are used for the messages for the automatic operators and which for the Morse operators.

The importance of sorting messages accurately.

The distribution of messages.

The location of Morse operators' tables as numbered.

The destinations served by the operators at each table.

Which tables serve overland destinations and which serve way destinations.

How to distinguish between the various classes of telegrams.

Which hooks beside the overland operators are reserved for each class of telegrams.

The importance of distributing telegrams promptly.

Why certain classes of telegrams are given preference over others.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

1

One line of promotion.

From route aid to:

- (a) Distributor.
- (b) Route clerk.
- (c) Route supervisor.

2

Another line of promotion.

From route aid to:

- (a) Distributor.
- (b) Route clerk.
- (c) Statistical clerk.

DISTRIBUTOR

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: traffic department of division, district, or relay offices.

Length of learning period: a few days.

Entrance requirements:

Age: sixteen or over.

Sex: male or female, usually female.

Previous skill or training: none.

Personal qualifications: retentive memory.

Physical qualifications: pass special physical examination.

Educational qualifications: seventh grade or higher.

II. DUTIES

When assisting the route aid.

Receive messages through the drop from the distributing belt on which they have been placed by the route clerks.

Separate the messages for the automatic operators from those for the Morse operators.

Place the messages for the automatic operators in racks according to destination as indicated by the initials written on the blank by the route clerk.

Place the messages for the Morse operators in racks according to the numbers written on the blank by the route clerk.

For certain large cities use separate racks for the various classes of messages.

As distributor.

Take from the racks containing the messages for the automatic operators the messages for each destination and proceed to the table where operators are sending messages to that destination.

Place the messages in the numbering machine beside each operator, but see that no operator has more than three messages at any one time.

In making the distribution take the regular rush messages (Black) first and the day letters (Blue) next.

Distribute the night letters after all other messages for the day are sent.

Observe the routing and the destination of messages, while distributing, in order to detect errors in routing.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The sorting of messages.

How to distinguish the messages for the automatic operators from those for the Morse operators, by observing the routing marks and the destination.

The destinations which are served by the automatic operators and those which are served by the Morse operators.

Which racks are used for the messages for the automatic operators and which for the Morse operators.

The importance of sorting messages accurately.

The distribution of messages.

The location of the tables which serve each destination on the automatic circuits.

The standard abbreviation used by the route clerks for each city served by the automatic circuits.

How to distinguish between the various classes of telegrams.

The importance of distributing telegrams promptly.

Why certain classes of telegrams are given preference over others.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

1

One line of promotion.

From route distributor to:

(a) Route clerk.

(b) Route supervisor.

2

Another line of promotion.

From route distributor to:

(a) Automatic operator.

(b) Unit supervisor.

AUTOMATIC OPERATOR**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: main or relay offices.

Length of learning period: three months (in automatic operators' school conducted by the company).

Usual length of service: girls, three to five years; boys, brief—three to six months.

Entrance requirements.

Age: eighteen or over.

Sex: female, except that the work on night shifts is done by boys.

Special skill or training: special training in company school.

Personal qualifications: steady, reliable, and not nervous.

Physical qualifications: must pass special physical examination.

Educational qualifications: high school graduate if possible; minimum, eighth grade. Must pass company's standard mental test.

II. DUTIES

As printer operator—receiving messages.

Watch incoming message on automatic printing machine. Remove blank from machine.

Proof-read message. Count words and verify with "check" which is marked in code on message.

Signal perforator operator if it appears that anything is wrong with the message or the equipment.

Mark off record of message on "Received Number Sheet."

Time message with dating and timing stamp.

Place message on distributing belt.

As perforator operator—sending messages.

"Sign in" on "Sent Number Sheet."

Received typed (or original) messages from route distributor.

Number message with number stamp (i.e., affix message number, call of distant office, and operator's personal signal).

Adjust perforated tape in transmitter.

Perforate tape by copying message on keyboard of automatic perforator (sender).

Time the original message with pencil after it has been transmitted.

File original message in "message file."

Note.—Operators alternate between receiving and sending messages every two hours, as a rule.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

Operating.

How to perforate sending tape by typing the message on the keyboard of the automatic perforator (multiplex sending instrument), by the touch system.

How to adjust perforated tape in the sender, and how to attend to the automatic printing machine (multiplex receiving instrument).

How to make the various “calls,” “bells,” and other signals to the distant operator when necessary.

The message.

Routine followed by the company in receiving messages from patrons.

Routine of transmitting and delivering telegrams.

Message parts: address, time notations, “check,” message proper, company codes, etc.

The function of the above message parts, or “extra words,” aside from the message proper.

The function of and the reason for making the various copies of the message, such as original, relay, and delivery copies.

The classes of domestic service messages and the reasons for this classification.

The classes of foreign service messages and the reasons for the classification.

The standard state abbreviations and why these should be strictly followed.

The relation of telegraphic messages to other forms of communication and their relative economic importance.

Geography.

Names and locations of cities and towns in the various states.

Spelling.

Care and accuracy in following spelling of all words in messages, especially in cases of code or foreign languages.

Arithmetic.

Accuracy in word counting.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The automatic operator may be promoted along any one of the four lines suggested below, depending on the sex.

1

A line of promotion for girls.

From automatic operator to:

- (a) Unit supervisor.
- (b) Instructress.

2

A line of promotion for boys.

From automatic operator to:

- (a) Unit supervisor.
- (b) Supervisor.
- (c) Assistant chief operator.

3

A line of promotion for boys or girls.

From automatic operator to:

- (a) Statistical clerk.
- (b) Timekeeper.
- (c) Claim clerk.
- (d) Chief clerk of operating division.

4

A line of promotion for boys.

From automatic operator to:

- (a) Assistant wire attendant.
- (b) Wire expert.

SEQUENCE CLERK

I. GENERAL FACTS CONCERNING THE JOB

Place of employment: Service Division of Traffic Department.

Length of learning period: about two weeks.

Entrance requirements:

Age: employee not usually taken under seventeen, although a bright girl of sixteen could perform the work satisfactorily.

Sex: female.

Previous skill or training: none.

Physical qualifications: pass physical examination given by the company.

Personal qualifications: accuracy, deftness, alertness, neatness.

Educational qualifications: preferably at least an eighth grade graduate; also ability to pass company's educational examination and intelligence test.

II. DUTIES

Collect messages from Traffic Department, as follows:

At regular intervals proceed to Traffic Department.

Remove messages of each operator from the racks, leaving in the rack the message bearing the largest serial number.

Do not leave any "bust" messages in the racks.

While collecting, keep messages of big telegraph offices separate by turning them crosswise in the pile of collected messages.

Bring bundle of collected messages to sequence desk in Service Department.

Record messages of the large offices on sequence sheet, as follows:

Insert on sheet labeled for each large office the high and low numbers of the messages sent, placing them in proper column.

Then check messages to see that all intervening numbers are there.

Enter on the sequence sheet in the proper column any number omitted.

Enter on the sequence sheet in the proper column any duplicate numbering of messages sent or unsent.

On the proper sheet make an entry of message numbers of all money transfers.

Stamp and segregate messages as follows:

Stamp all messages with the "examined" stamp having the number of the particular clerk.

While stamping, segregate messages into the following four groups:

One, messages to home office.

Two, messages from home office.

Three, money transfers.

Four, relay messages.

While stamping, watch messages to see that all "sending marks" are on each message.

Stamp both sheets of two-sheet messages, but before stamping the second sheet see that it has the proper sending marks.

When incomplete markings are discovered, make out correction slip, attach correction slip to message, and return message to supervisor.

When message is returned, complete the record on the correction slip, and file the correction slip.

Keep in a separate group, for the file clerk, all messages returned with corrections.

Take messages, when stamped, segregated, and examined, to the proper cabinet for filing by the file clerk.

Perform other duties as follows:

Look for messages bearing a certain number when requested to do so by any official; send them to the official.

Label sequence sheets for the large telegraph offices, as time permits.

Keep desk in order.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The Traffic Department.

Location in the department of the wires serving each city.

Location of the Morse instruments and the automatic instruments.

Names of the officials of the department and the location of their offices or desks.

The telegram.

How to recognize a day letter, night letter, day message, night message, radiogram, cablegram, "bust" message, code message, baseball message, press message, or money transfer.

How to recognize a message coming to the local city, going from the local city, or relayed through the local city.

How to read the marks on a message so as to be sure they are complete.

Collecting.

How to locate quickly the number on a message, so as to lose no time in seeing that the message left in the rack is the one bearing the highest number.

How to handle deftly a large pile of messages, carry them on the arm, and keep those of the larger offices crosswise in the pile.

Segregating.

Into what groups to segregate the telegrams collected.

How to recognize quickly the different classes of telegrams to be segregated.

How to make this segregation quickly and accurately.

Examining.

How to detect quickly omissions in the marking of any telegram.

How to make out and attach a correction slip when markings on a telegram are incomplete or incorrect.

What to do with the telegram when the correction slip has been attached.

How to complete the record of the correction when the telegram has been returned from the Traffic Department.

How to examine quickly a pile of messages to see that there are no omissions or duplications in numbering by the operator.

Recording.

For which offices, records of telegrams sent must be kept on the sequence sheets.

What the office call of each of these offices is.

What data, including the low and high number of messages, may be required on the sequence sheet.

What disposition to make of a sequence sheet when filled.

Where to get additional sequence sheets.

Stamping.

How to arrange the messages and the stamping pad, and how to hold the stamp, so as to stamp the messages quickly and neatly.

The Service Department.

In which part of the office the various kinds of messages are filed.

The names of the various workers and what their duties are.

The location of the supplies and equipment of the department.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

1

One line of promotion.

From sequence clerk to:

- (a) File clerk.
- (b) Searcher.
- (c) Service clerk.
- (d) Supervisor of Service Department.

2

Another line of promotion.

From sequence clerk to:

- (a) Route aid in telephone department.
- (b) Telephone recorder.
- (c) Supervisor of Telephone Department.

FILE CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Service Division of the Traffic Department.

Length of learning period: about two weeks.

Entrance requirements:

Age: usually not younger than seventeen or eighteen.

Sex: usually female.

Previous skill or training: none, though appointments are often made by promoting a sequence clerk or searcher.

Personal qualifications: must be observant, careful, accurate, and have a good memory.

Educational qualifications: preferably eighth grade or higher; also ability to pass company's educational examination and intelligence test.

II. DUTIES

Handle messages relayed through local office as follows:

Remove messages from box in which they have been placed by sequence clerk.

File California messages alphabetically by cities and towns.

File through relay messages alphabetically by states and large cities.

Separate the file for certain large cities into black, blue, and night-letter telegrams.

File cable messages for foreign points, alphabetically, under the name of the city of destination.

Handle messages destined *to* local city as follows:

Remove messages from box in which they have been placed by sequence clerk.

File messages alphabetically according to the name of the addressee.

File messages from foreign points alphabetically, according to the name of the addressee.

Handle messages *from* local city to distant points as follows:

Remove messages from box in which they have been placed by sequence clerk.

File messages alphabetically by cities in California.

File messages alphabetically by states and large cities outside of California.

File messages to foreign points alphabetically, according to destination, but in a separate section of the filing cabinet.

Handle special classes of messages as follows:

File, in their particular compartments, baseball messages, other press dispatches, official communications, and "bust" messages.

Handle telephoned messages as follows:

Remove them from box where they have been placed by route aid.

File them in the proper cabinet alphabetically, according to name of addressee.

Act as relief clerk for the following:

Sequence clerk, searcher, and service clerk.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The telegram.

How to recognize a day letter, night letter, day message, night message, radiogram, and cablegram.

How to recognize a "bust" message, code message, baseball message, press message, official interdepartmental message, etc.

How to recognize a message coming to, going from, or relayed through the local city.

What marks should be on a message; what these marks mean.

What to do in case defective or incomplete marking is discovered.

The importance of careful filing to the company and its patrons.

Filing.

The arrangement of the pigeonhole filing compartments in the office.

Which division of the filing compartments is reserved for the previous day's messages, for the present day's messages, for messages coming to the local city, for messages going from the local city, for radiograms, for cablegrams, and for telephoned messages respectively.

How to handle deftly a large bunch of messages and hold them in a way to facilitate their rapid filing.

How to find quickly the name of the addressee and the destination of the message.

The Service Department.

The function of the service department.

The relation of the Service Department to other departments in the company.

The names of the workers in the department and the duties of each.

The position of the file clerk. The relation of the work of the file clerk to that of the other clerks in the department.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The file clerk fills one of the more important positions in the Service Bureau. From this position there are several opportunities for promotion, both with the Service Bureau and from the Service Bureau into other bureaus of the Traffic Department. The most probable line is given below.

(a) Searcher file clerk.

(b) Service clerk.

(c) Supervisor of service bureau.

SEARCHER FILE CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: service bureau of telegraph offices.

Length of learning period: about two weeks.

Entrance requirements:

Age: sixteen or over, preferably over eighteen.

Sex: male or female, usually female.

Previous skill or training: none.

Personal qualifications: carefulness, accuracy, neatness, and dependability.

Physical qualifications: pass the physical examination given by the company.

Educational qualifications: preferably a grammar school graduate.

II. DUTIES*In handling service requests.*

Receive requests coming over the belt from various departments for service on messages.

Mark on the service message the time received and the initials designating the searcher.

Determine the approximate location of the desired message in the files.

Proceed to the files with the service request and search for the message desired.

When the message is found mark on it the time, attach it to the service request, and take it to the proper clerk for handling, as indicated by the department from which the request came.

Performing other duties.

Relieve the sequence clerk, the file clerk, or the service clerk, as occasion demands.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

Service requests.

What a service request or service message is.

The conditions which ordinarily give rise to service requests.

Where service requests most often originate.

Why the searcher file clerk should mark on the service request the time it is received, and her identification initials.

The relative importance of various kinds of service requests and the time allowed the service bureau on them.

The importance to the company of prompt action on service messages.

The message-filing system.

The arrangement of the pigeonhole files into divisions and the location of the divisions for messages to the local point, from the local point, for the present day, and for the previous day.

The importance of careful filing of messages.

Other systems of filing.

Company and department personnel.

The names of the important local officials of the company.

The names of the officials of the Traffic Department and of the employees in charge of the various bureaus of this department.

How the work of answering service requests is divided among the various service clerks, and where the clerk sits who handles each class of requests.

In regard to relief duties.

See Part III of the analyses of the Sequence Clerk, the File Clerk, and the Service Clerk.

IV. PROMOTIONAL POSSIBILITIES

The searcher file clerk holds one of the minor positions in the Service Bureau of the Traffic Department. From this position there are several opportunities for promotion to better paid and more responsible positions.

1

One line of promotion.

From searcher file clerk to:

(a) Service clerk.

(b) Supervisor of Service Bureau.

2

Another line of promotion.

From searcher file clerk to:

(a) Telephone recorder.

(b) Assistant to supervisor.

(c) Supervisor of Telephone Bureau.

FILE AND COPY CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: telephone department of large telegraph offices.

Length of learning period: two weeks to one month.

Entrance requirements:

Age: eighteen or over.

Sex: female.

Previous skill or training: none.

Personal qualifications: alertness, carefulness, neatness.

Physical qualifications: pass company's physical examination.

Educational qualifications: pass company's educational test.

II. DUTIES*In receiving and distributing messages.*

Pick up messages coming over the belt from the Operating Department.

Examine each message to see what disposition should be made of it.

Distribute messages to the Service Department, or to the proper wire for telephoning out, as indicated by the address and by the markings on the message.

Watch for death, condolence, or congratulation messages wrongly routed to Telephone Department and divert them to the Delivery Department.

In collecting messages for filing.

Proceed to the various wires and remove from the racks of the telephone operators the messages which they have telephoned out.

Take these telephoned messages to the pigeonhole files.

In segregating messages into groups.

Sort into one group messages which will be called for by the addressees.

Sort into another group messages which the addressees request shall be delivered.

Sort into a third group messages which are to be mailed to the addressees.

Sort into a fourth group messages which are to be filed.

In each case make two separate groups, one for collect messages, the other for messages on which tolls are not to be collected.

In numbering the messages.

Number all messages to be mailed, beginning each morning with the designated starting number and the proper stamp.

Number the other messages, beginning each morning with one.

In making water copies and skeleton messages.

Make skeleton messages, either on the typewriter or by hand, of all messages on which tolls are to be collected, filling the blank with the data called for.

Make water copies of the messages to be filed, of those to be mailed, and of those for which the addressees will call.

In making water copies, proceed as follows:

Place a wet tissue sheet smoothly over the original.

Fold both together horizontally and vertically.

Insert between the rolls of the copying press.

Operate the press by a handle or by an electric foot button.

Take the message from the rolls as it comes through.

Repeat several times to get a clear copy.

Unfold the message and separate the original and the duplicate tissue.

Examine the tissue and use a pencil to make clear any indistinct letters.

Stamp the tissue "Duplicate of telephoned message."

In filing the messages.

File the water copies and the originals, also the skeleton messages and originals, in separate sections and pigeonholes, alphabetically according to the name of the addressee.

In sending messages to Delivery Department.

Send to the Delivery Department the messages which the telephone operators have marked "deliver," with tag attached bearing the notation "advise delivery."

Send to the Delivery Department messages to be delivered or mailed, or for which addressees will call, as indicated by telephone operators, with tags attached directing the Delivery Department as to the disposition to be made of the messages.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

Receiving and distributing messages.

The location of the operators serving each particular branch, way circuit, or trunk circuit.

How to interpret the markings on the messages in order to distribute them correctly to the sending telephone operators.

Why messages relating to death, condolence, or congratulation should not be telephoned to the addressee.

Collecting messages for filing.

Where the telephone operators place the messages which they have telephoned out.

Segregating messages.

How to interpret the markings on a message blank in order to determine which are collect, which are paid or charged, which are to be mailed, which are to be delivered, and which will be called for by the addressees.

Numbering messages.

Which stamp to use in numbering the messages to be mailed.

Which stamp to use in numbering all messages not to be mailed.

How to reset the stamps used.

Why messages are numbered.

Why messages to be mailed, after having been telephoned, should be numbered separately.

Making skeleton messages and water copies.

Messages of which water copies should be made.

Messages of which skeleton messages should be made.

Why such records of messages must be kept.

Why water copies are made of some messages and skeleton messages of others.

How to fold the original and tissue sheet together.

How to operate the copying press.

The importance of having distinct water copies made.

IV. PROMOTIONAL POSSIBILITIES

There are practically no opportunities for advancement from this position in the Telephone Bureau unless the file and copy clerk chooses to enter the operators' school at a temporary partial sacrifice of salary.

TELEPHONE RECORDER**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: in branch or main telegraph offices.

Length of learning period: four to six weeks. (See below—Special skill required.)

Special health risks: none.

Entrance requirements:

Age: sixteen or over. (See application blank for employment.)

Sex: male or female.

Previous skill or training: (a) in branch offices—accuracy and ability to operate a typewriter; (b) in main offices—special course in Traffic Department training school, including use of special telephone and typewriter.

Personal requirements: courtesy and tact in telephone conversations regarding rates, and general information regarding telegrams.

Physical requirements: good eyesight and hearing. Must pass special physical examination prescribed for all employees except messengers.

Educational requirements: Minimum education—eighth grade. In main offices applicant must pass company's standard mental test. (See application blank.)

II. DUTIES

As recording operator at public board.

When coming on duty adjust the head set and take designated seat. As signal light flashes on the board plug in on the wire indicated and answer "Western Union" to the person wishing to send a telegram.

Get and record the following data on the typewriter:

The complete address, including name of addressee, his street and number, city and state address.

The body of the message.

The name and telephone number of the sender.

The class of service desired.

Repeat the message back for verification.

Look up the tolls on the message in the tariff book.

Enter the amount of tolls, the time of receiving the message, the class of service, and the method of payment.

Verify the telephone number given by the sender.

When the number given is of an apartment house or hotel call the manager and verify the charge.

Forward the message to the telegraph operators.

Make connections for persons desiring "Information."

Keep a record of the number of messages received by telephone. Turn the record over to the supervisor when going off duty.

Handle public coin box calls as follows:

Flash the central operator.

Quote the tolls to be collected.

Make the connection after Central gives the O.K.

As recording operator at branch office board.

Record on the typewriter the telegrams as they are dictated over the telephone from the various branch offices.

Read back the typed message to the other office, spelling out each word according to the telephone code.

Send completed message over the belt to the telegraph operators.

Keep a record of the number of messages received and turn it over to the supervisor when going off duty.

As delivering operator at public board.

Receive from the route aid the message to be telephoned to the addressee.

Call the telephone number found on the blank.

When person answers say, "This is Western Union. I have a telegram for ——."

If addressee is in or the person answering the telephone can take the message, read the message.

Request that the message be repeated back.

If the person also wishes telegram delivered by messenger or mailed, indicate the fact on the blank.

Stamp the message blank, entering thereon the time when the message was telephoned, the disposition to be made of the message (to be mailed, delivered—see above—or filed), and the designation of the telephone operator.

Place the message in the rack for the route aid.

If addressee does not answer or message cannot be taken by person answering the telephone, lay the message aside and make four trials at ten-minute intervals to get the addressee.

If finally unable to make telephonic delivery, enter the proper notation on the blank, and mark it "Deliver," when the route aid will forward it to the Delivery Department.

Keep a record of the number of messages telephoned. Turn the record over to the supervisor when going off duty.

As delivering operator at the branch office board.

Receive from the route aid the messages to be telephoned to the branch office.

Call the operator at the branch office.

Spell out every word and mark on the telegram blank in the telephone code, beginning at the upper left hand corner of the message and reading from left to right throughout the message for the convenience of the recording operator.

Place the message in the rack for the route aid.

As P. B. X. operator.

Make connections as called for by private branch exchanges.

Answer questions regarding rates and classes of service.

Answer "Western Union" on all incoming calls.

Say "I will connect you with (the department asked for by the patron)."

If patron calls and wants a message relay the call to the proper branch office. Keep a record, in the proper book, of all such calls.

Answer "operator" on requests for central.

Make extensions when one office calls another in the same building.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The telephone board and equipment.

The proper adjustment of the head set.

The kinds of cords.

The signals and their significance.

How to plug in.

The telegram.

The form of a telegram.

The various classes of service.

The reasons for classifying messages and offering special service.

The route of a telegram from receiving to delivering.

Rates.

How to find the rate and figure the charges on various classes of telegrams.

Ability to add and multiply.

Use of simple mathematical tables.

Correct counting.

How the company has divided the country as a basis for rating messages.

Tariff rules.

The tariff rules regarding the receipt of messages for transmission, and regarding the delivery of messages by telephone.

Rules for intra-office work in sending and receiving messages.

Guard words.

The complete list of guard words used to prevent errors in receiving and sending messages over the telephone.

The technique of the use of guard words in sending messages in intra-office work.

The necessity for the use of guard words.

The percentage of errors in sending and receiving messages.

English.

Clear enunciation.

Telephone phrases in courteous form.

Understanding of dialects and different accents.

Repeating numbers by separating them in parts.

The care of the vocal tract.

The importance of courteous speech in dealing with the public.

(Space left for additions.)

IV. PROMOTIONAL POSSIBILITIES

The telephone recorder may be promoted along either one of three general lines as suggested below. Opportunity and training is provided along either line, depending upon the preference and aptitude of the employee, and the availability of positions.

1

One line of promotion.

From telephone recorder to:

- (a) Counter clerk in branch office.
- (b) Bookkeeper in branch office.
- (c) Clerk in bookkeeping department of main office.
- (d) Chief bookkeeper.

2

Another line of promotion.

From telephone recorder to:

- (a) Morse operator.
- (b) Supervisor.
- (c) Branch office manager.

3

Another line of promotion.

From telephone recorder to:

- (a) Unit supervisor.
- (b) Supervisor of telephone bureau.

MORSE OPERATOR**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: main, relay, or way offices.

Length of learning period: indeterminate, unless attending company's Morse Training School (6 months).

Usual length of service: 5 years or over.

Entrance requirements:

Age: eighteen or over, preferably over twenty-five.

Sex: male or female, usually male.

Previous skill or training: take course in company training school, or have equivalent degree of skill as operator.

Personal qualifications: alertness, steady nerves.

Physical qualifications: must pass special physical examination.

Educational qualifications: high school graduate if possible, at least eighth grade. Pass company's standard mental test.

II. DUTIES*In receiving messages.*

Receive messages in Morse code signals from sounder.

Type message on typewriter according to standard forms.

Proof read message. Count words and verify with "check" (marked on message).

Make time notation on message.

Mark off record of message on "Received Number Sheet."

Forward message for delivery by:

(a) Placing on distributing belt (in main or relay office).

(b) Handing to delivery clerk or messenger in branch office.

In sending messages.

Send message in Morse code signals with Morse key to distant office, from original or relay message blank.

Endorse on the message blank the operator's sign, sign of distant office, time of sending, "check," and any other required company code.

Mark off record of message on "Sent Number Sheet."

File message.

Repeat and check back messages only on "repeat" telegrams.

Note.—In smaller branches the Morse operator may be in turn counter clerk, manager, bookkeeper, and office boy.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

Operating.

The Morse code.

A specified minimum of skill, namely accuracy and speed both in sending and receiving messages by the Morse instruments.

Ability to operate a typewriter to record messages received.

The message.

Routine followed by the company in receiving messages.

Routine of transmitting and delivering telegrams.

Message parts: address, time notations, "check," message proper, company codes, etc.

The function of the above message parts or "extra words," aside from the message proper.

The function of and the reason for making the various copies of the message, such as original, relay, and delivery copies.

The classes of domestic service messages and the reasons for this classification.

The classes of foreign service messages and the reasons for this classification.

The standard state abbreviations, and why these should be followed.

The relation of telegraphic messages to other forms of communication, and their relative economic importance.

Names and locations of cities and towns in the several states.

Spelling.

Care and accuracy in following spelling of all words in messages, especially in cases of code or foreign languages.

Clerical work. (Small town offices.)

The duties of the counter clerk, cashier, collect register clerk, etc., will be found in the analyses of these jobs.

IV. PROMOTIONAL POSSIBILITIES

1

One line of promotion.

From Morse operator to:

- (a) Unit supervisor.
- (b) Supervisor.
- (c) Assistant chief operator.
- (d) Chief operator.

2

Another line of promotion.

From Morse operator to:

- (a) Manager (in small office).
- (b) Manager (in city office).
- (c) General manager.

ROUTE SUPERVISOR**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: main offices in large cities.

Length of learning period: depends upon term of previous experience in the department.

Entrance requirements:

Age: eighteen or over, usually over twenty-one.

Sex: female, in day shifts, male at night.

Previous skill or training: experience as route clerk and tube attendant.

Personal qualifications: executive ability.

Physical qualifications: pass special physical examination.

Educational qualifications: seventh grade or over.

II. DUTIES

Supervise and direct the work of route aids, route clerks, and tube attendants.

Instruct new aids, clerks, and attendants in their duties.

Answer questions relative to the work of routing messages.

Be responsible to the chief operator for the work done by, and discipline of, route clerks and tube attendants.

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The office.

Location of operator's desk serving each "wire unit."

Arrangement of belt and tube distribution system of the office.

Names of the cities and towns in the territory served by each "destination unit" and "wire unit."

Geography.

Subdivisions of the company territory into "destination units" and "wire units."

Streets and buildings within district of each branch office.

How to locate the "wire unit" over which any given message must be sent.

Directing workers.

How to instruct and train route aids and tube attendants.

How to distribute work fairly among the group of workers.

How to answer questions regarding message routing.

How to keep the workers' time cards.

How to make out the necessary reports for the chief operator.

SERVICE CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Service Bureau of the Traffic Department.

Length of learning period: about one month.

Entrance requirements:

Age: preferably over eighteen.

Sex: generally female.

Previous skill or training: some knowledge of typewriting.

Personal qualifications: good judgment, carefulness, and neatness.

Physical qualifications: ability to pass the company's examination.

Educational qualifications: ability to pass the company's educational test.

II. DUTIES

In answering requests for information from telegraph offices at other points.

Receive from the searcher the service request and the corresponding message.

Make out all service replies in duplicate on the typewriter, using a blank half sheet for the purpose.

Send the original of the reply on the belt to the central distributing center.

Attach the duplicate to the message on which service was requested and place in box for refileing.

In sending service messages use the company's abbreviations for all commonly used words.

Mark on all telegrams the time when the service was completed.

Answer, first, all requests for the repetition of words or messages.

If service is a notification of "tolls unpaid at destination," notify the sender of the message on the blank used for that purpose, referring to the tariff book if necessary for information as to rate and charges.

In answering requests for information from local addressees.

Answer the request over the telephone.

Stamp the message with the "telephoned" stamp and fill in the blanks on the stamp.

In handling service requests from the bookkeeping department.

Number each request and the corresponding answer consecutively, beginning with Monday of each week.

In sending service requests to other telegraph offices.

Prepare a clear, concise service message, referring to the telegram in question and to the notations made by the person or department seeking the information.

Retain all messages until the answer has been received.

If it is necessary to hold the message out of the files for more than the usual time, make out a skeleton message and place it in the box for the file clerk.

While messages are awaiting answers to service requests, keep them in a separate group, taking out each message as the service is completed and returning it to the box for the file clerk.

When service is requested from the Traffic Department because of doubt as to destination, wire the probable destination first to see if the addressee is known.

If addressee is not known at the probable destination, send a service request to the point of origin of the message (e.g. on a message from Laramie, Wyoming, to John Burford, Taft, California, sent by James Gordon, prepare a service message for Taft, the probable destination, first, to see if they know John Burford. If they do not, then prepare a service message for Laramie regarding the matter).

In acting as relief clerk.

Relieve the sequence clerk, the searcher, or the file clerk. See the duties of these clerks.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

Service requests from other telegraph offices.

How to proceed to find quickly the desired information asked for in the service request.

The abbreviations used by the company in writing service communications.

Why abbreviations are used in service messages.

The proper blank to use in answering service requests.

How to make up a service relay message. What to do with the original of the reply. What to do with the duplicate and the original message on which service was requested.

Why the time of sending all service messages should be recorded.

Why requests for repetition should be given preference.

How to handle notifications of "tolls unpaid at destination."

The importance, to all concerned, of prompt action on service requests.

Requests from local addressees.

How requests from local addressees are received and handled.

How to find quickly the information desired by local addressees.

Why the "telephoned" stamp should be used on the message and what data should be entered upon it.

Requests from the Bookkeeping Department.

The usual nature of requests from the Bookkeeping Department.

How the information desired by the Bookkeeping Department may be obtained.

How the requests from the Bookkeeping Department are numbered.

Sending out service requests.

How to prepare quickly a clear, concise service message, by referring to the telegram in question and to the notations accompanying it.

The procedure in handling outgoing service requests.

Why skeletons should be made for messages held out of the files unduly long.

Why messages awaiting replies to service requests should be kept in a separate group.

What to do when the service request arises because of doubt as to destination.

How good judgment on the part of the service clerk can benefit the company and its patrons.

Geography—A knowledge of the names of cities and towns in the territory served by the division.

English—How to frame a service message for information in regard to destination of a message.

Acting as relief clerk.

See Section III of the analyses of the jobs of sequence clerk, the searcher file clerk, and the file clerk.

(Space left for additions.)

STATISTICAL CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Traffic Department, office of the chief clerk.

Length of learning period: about one month.

Special hazards: none.

Entrance requirements:

Age: eighteen or over, usually over twenty-one.

Sex: female.

Previous skill or training: preferably a knowledge of automatic telegraph operating; or previous clerical experience.

Personal qualifications: accuracy and ability to handle details.

Physical qualifications: pass special physical examination.

Educational qualifications: eighth grade or higher.

II. DUTIES

Obtain and record from the "sent number sheets" and "received number sheets of the telegraph operators data concerning the number of messages handled each day on both Morse and automatic circuits.

See that the number of reports received is the same as the number of operators on each "trick" as shown by the time keeper's records.

Separate these data for each circuit into number of messages handled in each "trick."

Tabulate all this information in prescribed manner on special daily, weekly, monthly, and annual forms.

Keep these statistical forms and data properly filed and keep files in order so that all statistical information can be found at once.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The department.

The organization of the department.

The lines of authority in the department.

The routing of work through the department.

The office equipment.

The use of the adding machine, the office files, and other office equipment.

Tabulation.

How to use the message record sheets.

How to sort and tabulate the required data on the weekly, monthly, and annual blanks.

The importance of neatness and accuracy in statistical work.

Filing.

The approved methods of filing.

The method of filing used in the office.

How to file the forms received and the blanks made out.

How to find any information from the files upon request.

Statistics.

The interpretation of statistics, tabular and graphical.

The significance and importance of the statistical work.

The value of the experience as statistical clerk in preparing for promotion in the department.

Mathematics.

Sufficient knowledge of addition to make the clerk independent of the machine.

The elements of mathematics necessary for statistical work.

(Space left for additions.)

CLAIM CLERK**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Traffic Department, office of the chief clerk.

Length of learning period: indefinite.

Special hazards: none.

Entrance requirements:

Age: twenty to twenty-one years or over.

Sex: female.

Previous skill or training: preferably a knowledge of automatic or Morse operating, as well as previous office experience as a stenographer and statistical clerk.

Personal qualifications: self reliance, ability to direct the work of others.

Physical qualifications: pass special physical examination.

Educational qualifications: eighth grade or higher.

II. DUTIES

Attend to all correspondence between the Traffic Department and others, under the chief clerk's direction.

Receive all correspondence coming into the department respecting claims of any kind arising from delay or mistake in forwarding messages, or from errors made in sending messages.

Find a copy of the message in question in the files and obtain any data necessary as to time of sending and delivery, and the names of operators handling the message.

Verify the accuracy of transmission at relay points and at destination.

Write a complete report and forward it through the proper channels.

Keep a record on file of all such correspondence.

Direct and supervise claim clerk's assistants.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The telegraph company.

The general organization of the company, the several divisions and departments.

The company's policy and service.

The organization and functions of the service bureau.

Interdepartmental routines and lines of contact.

The policy of the company respecting claims.

The office.

The nature of the statistical work done in the office.

The lines of authority in the office.

How to obtain information from the records of messages.

English.

How to dictate a clear, concise request for information regarding a claim.

How to make a complete, concise report of an investigation of a claim.

The correct form, as to spelling, paragraphing, and punctuation in business letters and reports.

The transmission of messages.

The steps followed in the transmission of messages.

The route of any message in transmission from one point to another.

The points at which errors, mechanical or personal, may occur.

The records.

Approved methods of record keeping.

The character of records of messages kept at receiving stations, relay points, and destination.

The importance to a telegraph company of accurate and complete records.

Filing.

How to file and find information received on active claims.

How to file and find information gathered on settled claims.

Approved methods of filing correspondence.

Approved methods of filing cards, records, and blanks, especially those used in the telegraph business.

The importance of careful and systematic filing.

(Space left for additions.)

TIMEKEEPER**I. GENERAL FACTS CONCERNING THE JOB**

Place of employment: Traffic Department, office of the chief clerk.

Length of learning period: about two weeks.

Entrance requirements:

Age: eighteen or over.

Sex: female.

Previous skill or training: ability to use the adding machine; thorough familiarity with the duties of the claim clerk, and preferably also a knowledge of automatic telegraph operating.

Personal qualifications: same qualities as for bookkeeper or file clerk.

Physical qualifications: pass special physical examination.

Educational qualifications: eighth grade or higher.

II. DUTIES

Make new time-cards each week with names of employees and dates.

Assort the time-cards into divisions, and "tricks," viz., day, night, and late night shifts.

Take "out" time-cards from racks at given hours of the day and record absences.

Take "in" time-cards from racks at given hours and make a record of each employee's time as shown on the card.

Make out a time-card for each new employee, as directed.

Make out payroll vouchers for each employee, weekly.

File used time-cards for each employee.

Prepare the weekly payroll on the regulation blank.

Send the payroll and the vouchers to the proper authority.

Direct and supervise the work of the assistant timekeeper.

(Space left for additions.)

III. REQUIRED KNOWLEDGE—DIRECT VALUE UNITS

The office.

Personnel and organization of the department.

The work of statistical clerks and of operators.

Organization of the day into "tricks."

The method of making payment.

Regulations of the office in regard to deductions for absence and tardiness, and increases for overtime.

Rules regarding requisitions for materials.

Record keeping.

Method of record keeping and the accounting system of the department.

Modern methods of loose-leaf accounting.

Form of keeping payrolls.

Form of payroll vouchers.

Filing of time-cards and other payroll records.

Methods of filing other than those used in the office.

Arithmetic.

The four fundamental operations.

The use of the payroll calculating chart or wage table.

Office appliances.

The use of the adding machine.

The use of calculating and bookkeeping machines.

(Space left for additions.)

PART THREE

SUGGESTIVE INSTRUCTIONAL MATERIAL

BACKGROUND TOPICS

Listed below are a number of subjects for instruction related to the business of a telegraph company. These subjects will furnish a background of useful knowledge to the worker in the field of telegraphy. They should give youthful employees of telegraph companies an appreciation of the telegraph business as a service to the public and as a factor in the development of the country, and should show them their responsibility to the company which employs them, their responsibility to themselves and to the community as wage earners and citizens, and last but not least, the responsibility of the company to its employees.

Telegraphy.

A brief history of the invention of the telegraph.

The beginnings of the telegraph business.

The development of telegraphy.

Morse telegraphy.

Automatic telegraphy.

The Western Union multiplex system.

The principles underlying the telegraphic transmission of messages.

Biographies of famous men in the field of telegraphy.

Other Methods of Message Transmission.

The United States Mail Service.

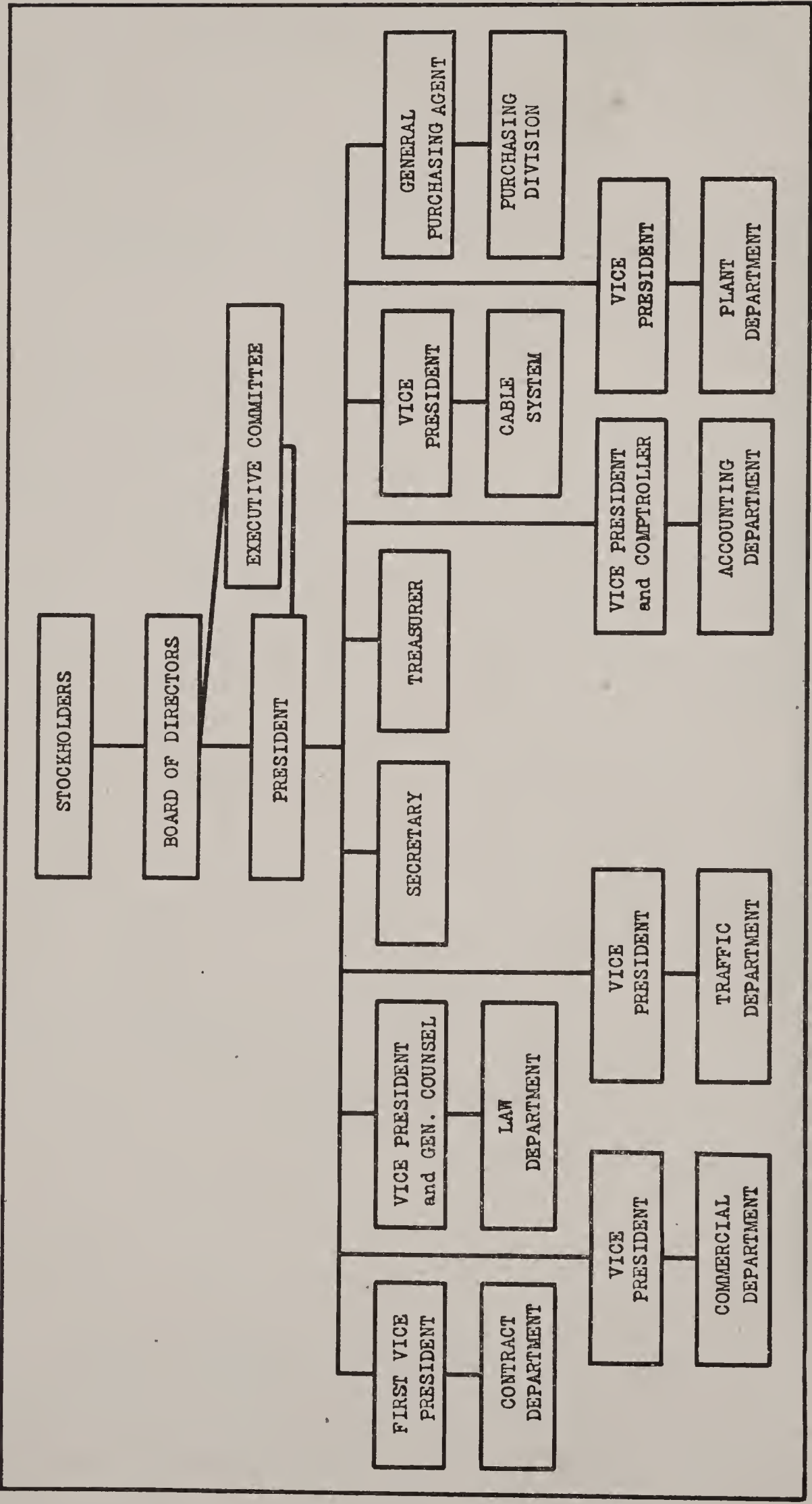
The Telephone.

The Cable.

The Wireless Telephone.

The Radiotelegraph.

(The particular field of each of these methods of message transmission; the relative importance of each of these methods; recent developments in each of these methods; how all other means of communication are often used as adjuncts to telegraphy.)



NATIONAL ORGANIZATION PLAN—TELEGRAPH COMPANY

The Telegraph Service.

The universality of the telegraph service.

The millions of people dependent upon the telegraph for business and social communication.

The services rendered by a telegraph company.

Message transmission. (The various classes of telegrams and cablegrams.)

Money transfer service.

Messenger service. (Message delivery; message collection; National Distribution Service; errand service.)

Commercial News Dispatch. (Market quotations and reports, baseball, football, and other news, by messenger, private wire, or ticker, according to contract.)

Time service. (Master clocks; clock rentals; program bells, factory whistles, and signal lights.)

The Economic Importance of the Telegraph.

“Of all inventions, the alphabet and printing press alone excepted, those which abridge distance have done the most for civilization.”—Macaulay.

Long distance communication before the invention of the telegraph.

The telegraph as a factor in the prompt transaction of business.

The telegraph as a factor in the economic development of the country.

The Telegraph Company.

General administrative organization.

Geographic organization.

Functional organization.

The four departments (plant, traffic, commercial, and accounting) of the company, and the function and importance of each department.

Interdepartmental routines and lines of contact.

The Legal Status of the Telegraph Company.

The rights of telegraph companies as defined under the Act of Congress of July, 1866, and under Section 536 of the Civil Code of California.

Construction rights on military or post roads.

Rights to condemn property.

Limitations through police regulations.

Rights of cities to exclude, tax, or charge rentals.

The Regulation of Telegraph Companies.

The public nature of the telegraph business.

The necessity for public regulation of public servants.

The authority of the Interstate Commerce Commission over telegraph companies.

The authority of the State Railroad Commission over telegraph companies.

History of the Western Union Telegraph Company.

The first telegraph companies.

The New York and Mississippi Valley Printing Telegraph Company.

The operating arrangement of 1851.

The formation of the Western Union Telegraph Company in 1856.

The completion of the first line to the Pacific Coast in 1861.

Consolidations up to 1866.

The Act of Congress of July, 1866, and its importance.

The development of the company since 1866.

The present geographic extent of the company's lines.

The relative size and importance of the company.

Policies of the company as a servant of the public.

History of Other Telegraph Companies.

The origin and growth of these companies.

The territory served by them.

The relative size and importance of these companies.

Their policies as servants of the public.

The Telegraph in Business.

The numerous advantages of a telegram over an ordinary letter.

The class of message ordinarily used in business.

The use of the telegraph in buying, selling, advertising, collecting bad debts, etc.

Comparison of the telegram and the circular letter as to costs and results.

The increasing use of the telegraph in business.

The State Industrial Welfare Commission.

The conditions which made necessary the creation of the Commission.

The scope of its authority.

The beneficial regulations of the Commission in regard to the work of minors as to age, rate of pay, hours of work, overtime, day of rest, lighting of workrooms, ventilation, temperature, sanitary conditions, fire exits, etc.

The attitude of the modern employer contrasted with that of many employers of early times in regard to the welfare of employees.

The State Industrial Accident Commission.

The conditions which made necessary the creation of the Commission.

The scope of its authority.

The regulations of the Commission in regard to the employment of minors.

ANECDOTES OF THE SERVICE

Earnings One Cent.—"The first telegraph line was built between Washington and Baltimore in 1844 under an appropriation from Congress. . . . It was opened to public use on April 1, 1845. It may be interesting to know something of the first days of this new line. From April 1st to 4th the cash receipts were 1c. This munificent sum was received from a United States Senator. Congress had fixed the tolls to be charged at a rate of a half cent for each character transmitted. The Senator desired to view the telegraph in actual operation, and as usual with those obsessed with the importance of their positions, he desired to be shown without cost. This the operator refused to do, saying that it would be a violation of his oath to the Government. The Senator had nothing less than a \$20.00 bill, other than a copper cent. The operator consented to send the figure "4" which was the signal for inquiring for correct time. It then being one o'clock in Baltimore, the figure "1" was returned and the operator debited his account with receipts of one cent. On April 5th the receipts were 12½ cents; on the 7th they totalled 60 cents, and on the 8th they ran up to \$1.32. This is in remarkable contrast with the situation in 1920, when the gross operating revenue of the Western Union Telegraph Company amounted to approximately \$120,000,000."—C. F. Newsom.

Eighty Miles and Back.—"Mr. T. P. Cook, a former General Manager, . . . was one of the operators of this pioneer line (to the Pacific Coast). He relates that he was stationed at a military office somewhere between here and the Missouri River. A company of

soldiers was provided for protection against the depredations of the Indians. One night the then young Cook desired to talk with an operator east of his station and not wishing to have his conversation overheard by those west of him he put on his ground wire, and when through proceeded to forget all about it. The east soon commenced calling San Francisco and being unable to raise that office it was decided that the line had been grounded somewhere, and young Cook was instructed to take his company of soldiers and investigate, and although he rode west for eighty miles and back he failed to find the ground until told to examine his own switchboard. Great beads of perspiration stood out on his brow when he realized that he had tied up all communication from coast to coast for over twenty-four hours.”
—C. F. Newsom.

Heroes of Everyday Life.—See pages 26–29 of Fannie E. Coe’s book by this name (Ginn & Co., 1911) for accounts of heroism displayed by telegraph operators in the discharge of their duty.

Corporations.

- The distinction between a corporation and a partnership.
- How corporations are created.
- The capital stock of a corporation.
- Rights and liabilities of the owners (stockholders).
- How a corporation is managed.
- Duties and responsibilities of directors and officers.
- Different kinds of corporations.
- The telegraph company as a quasi-public corporation.

Statistics.

- How to prepare charts and graphs from statistical data.
- The interpretation of data presented in tabular or graphic form.
- The importance of statistical work.
- The importance of accurate and reliable data.
- The use of statistics in the work of a telegraph company.

Filing Systems.

- Systems for the filing of correspondence.
- Systems for the filing of records on cards and forms.
- Methods of filing cards, forms, and blanks used in the telegraph business.

Elementary Business Law.

Contracts :

Essentials of an enforceable contract.

Agreement (offer and acceptance).

Competent parties (principal emphasis upon the competency of minors).

Absence of fraud, duress, or undue influence.

Good and sufficient consideration.

A legal object.

Particular form (for certain contracts).

The nature of the contract entered into by and between the telegraph company and its patrons.

The obligations of a telegraph company compared to those of a common carrier.

The nature of the contract entered into by and between the telegraph company and each employee.

Bailments :

A bailment as a particular kind of contract.

The various classes of bailments.

The telegraph company as a bailee.

Agency :

Elementary consideration of the subject of principal and agent, and of master and servant.

The telegraph company as an agent.

Negotiable Instruments :

Common forms of negotiable instruments, with particular emphasis upon checks and drafts.

How money is transferred by telegraph.

Bookkeeping and Accounting.

The fundamental principles of debit and credit.

How to keep a systematic account of personal receipts and expenditures.

How to make a budget.

The importance of making and being guided by a budget for a private individual or for a firm.

How to make up a statement of profits and losses and of assets and liabilities from one's personal accounts.

The importance of a periodic inventory of profits and losses, assets and liabilities, for a private individual and for a firm.

The financial statement as a basis for the granting of credit.

Bookkeeping and accounting methods and practices in the telegraph business.

The Uniform System of Accounts for Telegraph and Cable Companies, prescribed by the Interstate Commerce Commission.

Geography.

Names and approximate location of the forty-eight states.

Names of the capital and important cities of each state.

Names and approximate location of all dependencies of the United States; their capitals and important cities.

Standard state abbreviations.

Names and approximate location of important foreign countries; their capitals and important cities.

Terminal points of trans-Pacific and trans-Atlantic cables, and of those connecting North America and South America.

Mid-Atlantic and mid-Pacific cable stations.

The routes of the three transcontinental trunk lines of the Western Union.

The geographic and climatic conditions which make necessary more than one transcontinental trunk line.

English.

The reading and interpretation of tariffs, tariff circulars, and tariff supplements of telegraph companies.

The reading and interpretation of the statements on the back of telegraph blanks and cablegram blanks.

Clear and concise oral and written expression, with application to the telegraph business.

The Employee's Responsibilities.

The necessity of observing a prescribed routine of work.

The dependence of the company upon its employees for performing their duties in the routine way.

The organization of the telegraph company.

The value to the company of an employee who is familiar with its organization.

The history of a telegram.

What happens to a telegram from receipt to delivery.

The records necessitated by the sending of a message.

The various employees who are involved in the sending of a message.

The cost of a message and the charge for sending it.

The responsibility of each employee for the prompt and accurate transmission and delivery of every message.

Ethics and decorum for employees.

The importance of courtesy and politeness toward officials, fellow workers, and the public.

The responsibility of each employee in maintaining the good reputation of the company.

The importance of an honest day's work for an honest day's pay.

The ethics of the telegraph business.

The importance of holding as confidential all information contained in messages transmitted by the company.

The urgency of all telegraphic communications.

The reasons why the patron is always assumed to be in the right.

Health and hygiene.

The importance of good health as a factor in success.

The value of a neat appearance.

What constitutes a neat appearance.

Simple everyday health rules.

The importance of proper food. How to select a good meal.

The demands of good citizenship.

The duty of coöperation.

The duty of participation.

The duty of contribution.

A definite aim.—“Men continually fail for lack of a definite aim. The man who is perpetually hesitating which of two things he will do first, will do neither. The man who resolves but suffers his resolution to be changed by the first counter-suggestion of a friend—who fluctuates from plan to plan and veers like a weather-cock to every breath of caprice that blows—can never accomplish anything real or useful. It is only the man who first consults wisely, then resolves firmly, and then executes his purpose with inflexible perseverance, undismayed by those petty difficulties that daunt a weaker spirit, that can advance to eminence in any line.”
—William Wirt.

“He profits most who serves best.” (The Rotary Slogan.)

The Telegraph Company's Responsibilities.

Safe, sanitary, and pleasant working conditions.

Care in case of accident, sickness, or old age.

A day's pay for a day's work.

Opportunity for study and advancement.

How the employee's company discharges its responsibilities.

Accident, sickness, disability, and death benefits.

Medical and nursing service.

Rest rooms.

Pensions.

Vacations with pay.

Income participation.

BOOKS AND MAGAZINES DEALING WITH TELEGRAPHY**BOOKS**

History of the Telegraph.

Maury & Maury. *American Inventions and Inventors*. Silver, Burdett & Co.

Section VI, Chapter V, The Telegraph.

Section VI, Chapter VI, The Atlantic Cable.

Especially suited to youths.

Reid, James D. *The Telegraph in America*. Telegraph and Telephone Age, New York.

A history of American telegraph companies and men connected with them.

Vail, J. C. *American Electro-Magnetic Telegraphy*. Hine Bros., 100 William St., New York.

The early history of the telegraph as shown by extracts from the letters and journals of Alfred Vail.

The Western Union Telegraph Company. *The Telegraph*.

An interesting and well illustrated pamphlet dealing with the history and present development of the telegraph. Written for the layman.

Telegraph. Encyclopaedia Britannica.

Under the word "Telegraph," Part I, Land and Submarine Telegraphy, see the sub-headings, Historical Sketch, Duplex Telegraphy, and Commercial Aspects.

Telegraphy.

Dodge, G. M. *The Telegraph Instructor*. Telegraph and Telephone Age.

Clear in explanation. Many illustrations. A book for the beginner.

Maver and Davis. *The Quadruplex*. W. J. Johnston Co., New York.

Pages 110–128 are devoted to an explanation of the Wheatstone Automatic Telegraph.

McNicol, D. *American Telegraph Practice*. McGraw-Hill Book Co.

A comprehensive handbook. Presents a complete treatment of every phase of telegraphy.

Meadowcroft, William H. *A B C of Electricity*. Telegraph and Telephone Age.

Basic principles of electrical science. Endorsed by Thomas A. Edison.

Western Union Multiplex System. Telegraph and Telephone Age.

A pamphlet describing the Western Union printing telegraph system.

The Telegraph Service.

Every junior employee of a telegraph company and every teacher of junior employees of telegraph companies should be thoroughly familiar with the contents of the four pamphlets described below. These pamphlets are published and distributed by the Western Union Telegraph Company.

Choosing a Career.

This pamphlet discusses the Western Union service as a career. It is interestingly written and well illustrated.

The Telegraph in Selling.

Describes and illustrates many ways in which the telegraph has been used effectively in selling various commodities.

The Telegraph in Direct Advertising.

Tells briefly how the telegraph has been used in direct advertising.

The Telegraph Gets Results.

Relates instances of effective application of the telegraph in selling, advertising, purchasing, in making collections, and in the general conduct of business.

Wireless.

Ashley and Hayward. *Wireless Telegraphy and Telephony*. American School of Correspondence, Chicago.

A practical and understandable presentation.

Kennelly. *Wireless Telegraphy and Telephony*. Moffat, Yard and Co., New York.

An elementary treatise. Easier to read than most books on the subject.

Biography.

Hubert, G. M. *Inventors*. Scribner's. Chapter V—S. F. B. Morse.

Very readable. Some illustrations.

Morse, E. L. *Samuel F. B. Morse*. Houghton, Mifflin Co.

Two volumes, containing the letters and journals of S. F. B. Morse, edited by his son.

Accounting.

A Uniform System of Accounts for Telegraph and Cable Companies.

Compiled by the Interstate Commerce Commission. Prescribes a uniform system of numbered accounts for telegraph and cable companies. Lists the items which should be debited and credited to each account.

Health and Hygiene.

Allen, W. H. *Civics and Health*. Ginn and Co.

Bases efficient citizenship on health and suggests curative and preventive measures.

Bussey, G. D. *A Manual of Personal Hygiene*. Ginn.

Discusses ventilation, eating, care of the teeth, hair, nose, and throat.

Tolman and Guthrie. *Hygiene for the Worker*. American Book Co.

Has chapters on preparing for the day's work, suitable clothing, food and drink, fatigue, etc.

Good Citizenship.

Coe, Fannie E. *Heroes of Everyday Life*. Ginn.

Graphic accounts of heroism displayed in the discharge of duty. *The Telegraph Operator*, pages 26-39.

Finch, C. E. *Everyday Civics*. American Book Co.

Not to give information but to lead pupils to investigate, study, and act upon the problems of community life, is the purpose of this book.

Hill, H. C. *Community Life and Civic Problems*. Ginn.

Part III, entitled Industrial Society, has some material of special interest to telegraph employees.

Fifteen Lessons in Thrift. Savings Division, U. S. Treasury Department.

(Obtainable in California from the District Director, Savings Division, U. S. Treasury Department, 315 Battery St., San Francisco.)

Hughes, R. O. *Economic Civics*. Allyn and Bacon.

Has excellent chapters on the things we need, the things we want, producing things, modern business, and making living conditions better.

MAGAZINES

Telegraph and Telephone Age. (Published semi-monthly at 253 Broadway, New York. 20 cents per copy, \$2.00 per year.)

An excellent magazine for all interested in the fields of wire, and wireless, telegraphy and telephony.

Journal of Electricity. San Francisco, Cal.

The August, 1920, number contains an excellent and very interesting account of "Modern Telegraph Service." It has several good illustrations of the Traffic Department and its equipment in the Western Union offices in San Francisco. It describes the history of a telegram and the workings of one of the most modern telegraph offices in the world.

CLASSES OF DOMESTIC MESSAGES

Class of Service	Designation	Minimum Word Basis	Charge Basis	Language	Filing Time Limit	Description
Full rate	Black	10	Distance and number of words	Code, cipher, or any of the eight	None	A rush message entitled to the most speedy delivery possible
Night letter	NL	50	1 ½ times black	Plain English	Up to 2:00 a.m.	Transmitted after all others; delivered the following morning
Day Letter	BLUE	50	1 ½ times NL	Plain English	Up to 2:00 a.m.	Transmitted as promptly as full-rate message transmission will permit
Night Message	NITE	10	Distance and number of words	Code, cipher, or any of the eight	None	Delivered not earlier than the following morning
Day Press Dispatch	DPR	According to contract	According to contract	Plain English	6 a.m. to 6 p.m.	For news dispatches filed during the day
Night Press Dispatch	NPR	According to contract	According to contract	Plain English	6 p.m. to 6 a.m.	For news dispatches filed during the night
Query	DPR or NPR	According to contract	According to contract	Plain English	None	Messages relating to news dispatches
Day Combination Reports	DCR	According to contract	According to contract	Plain English	6 a.m. to 6 p.m.	Press dispatches; specified maximum number of words; filed at stated times on certain day; transmitted to a combination of four or more subscribers to the service of the press association
Night Combination Reports	NCR	According to contract	According to contract	Plain English	6 p.m. to 6 a.m.	

CLASSES OF DOMESTIC MESSAGES—(Concluded)

Class of Service	Designation	Minimum Word Basis	Charge Basis	Language	Filing Time Limit	Description
Government	GOVT	According to contract	According to contract	Code, cipher, or any of the eight	None	Messages dealing with government business; given priority over all others in transmission
Money Transfer	FREE	10-word basis for extra message	Amount sent plus charge for 15 words	Transfer is coded	During business day	Company message ordering payment of certain sum to designated person; regular message may also accompany it
Deadhead	DH	No word limit	No charge			Company messages; directors' and employees' free messages
Contract	CAK		Charges by contract			Railroad, express, and other messages transmitted according to contract between company and sender
Commercial News Department	CND	Not counted before transmission	Extent of service desired	Plain English or code		Messages relating to markets, stocks, sports, etc.
Service Message	SVC	None	None	Plain English and code	None	Messages between telegraph offices regarding service accorded regular traffic
Wire Message	WIRE	None	None	Code and Plain English	None	Messages regarding wire and traffic conditions
Supervisors'	None	None	Code and Plain English	None	Messages relating to automatic traffic conditions

VOCABULARY OF TERMS USED IN THE TELEGRAPH BUSINESS

Accepted at sender's risk	Night letter
Addressee	Night message
Alternative address	Nite
Application blank	Off-line representative
Auditing department	One-star point
Automatic circuit	Operating capacity
Battery	Operating department
Belt system	Other line charge
Black	Other line point
Blue	Payee
Blue tag	Personal identification
Branch operator	Pick-up
Bust message	Plant department
Cablegram	Press message
C A K	Private branch exchange
Call circuit service	Quadruplex
Check	Radiogram
Cipher message	Rate
Class of service	Rate sheet
Clock service	Received number sheet
Code message	Relay point
Collect card	Relief work
Collect message	Report delivery
Collect register	Route aid
Commercial department	Route clerk
Commercial news dispatch	Route distributor
Complimentary frank	Route supervisor
Day letter	Sender
Day message	Sending marks
Deadhead	Sending office
Delivery charges	Sent number sheet
Delivery guaranteed	Sequence sheet
Delivery notice	Service department
Delivery sheet	Service message
Delivery supervisor	Service request
Deferred half rate	Skeleton message
Destination	Special delivery
Drop	Square sheet
Duplex circuit	State rate
Errand service	Subject to delay
Extra words	Tariff
Four-star point	Tariff circular
Frank	Tariff supplement
Full-rate cablegram	Telegram
Guard word	This line charge
Guarantee deposit	Three-star point
Identification card	Ticker
Land line	Time card
Message blank	Time clock
Messenger call register	Time service
Messenger record blank	Tolls
Messenger service	Traffic department
Money message	Trick
Money transfer service	Trunk circuit
Morse instrument	Two-star point
Multiple circuit	Waiving identification
Multiple transmission	Way circuit
Multiplex receiving instrument	Weekend letter
Multiplex sending instrument	Wheatstone system

SUGGESTED LESSONS FOR MESSENGERS

The four groups of lessons on the following pages were derived from the analysis of the job of messenger which will be found on pages 25 to 38 of this bulletin. No attempt has been made to make any group complete or to treat any lesson exhaustively. Only a few outstanding facts have been singled out for treatment in each lesson. A number of lessons have been developed fully for purposes of illustration, to show how the topics chosen are related to the work which messengers are doing, and to serve as a guide to instructors in organizing additional lessons. The material for the additional suggested lessons, for those which have been outlined only, and for any others, may be found by reference to the analysis of the job, to the Background Topics listed on pages 121 to 129 of this bulletin, to the list of Books and Magazines on pages 130 to 132 of this bulletin, and by conferences with officers of the telegraph company.

For convenience the lessons have been placed in the following groups—Occupational Background, Efficiency and Promotion, Citizenship, and Health and Hygiene.

OCCUPATIONAL BACKGROUND GROUP

The lessons in this group take into consideration two facts; first, that the messenger is in the employ of a telegraph company; second, that the relationship between the messenger and the company is a contractual or business relationship. Accordingly, there are two aims. The first aim is to enrich and broaden the messenger's knowledge of the history, organization, extent, and importance of the company for which he is working. The second aim is to give the messenger an understanding of a few of the more simple moral and legal obligations which arise out of the relationship which obtains between himself and the telegraph company.

LIST OF LESSONS

1. The Departments of a Telegraph Company.
2. The Geographic Organization of a Telegraph Company.
3. The Relative Importance of the Telegraph.
4. The Economic Importance of the Telegraph.
5. The Telegraph in Business.
6. Agreements.
7. Contracts of Minors.
8. The Contract for Personal Service.
9. The Obligations of an Employee.
10. The Obligations of an Employer.

ADDITIONAL SUGGESTED LESSONS

1. The Telegraph as a Government Aid.
2. History of the Western Union.
3. Geographic Extent of the Western Union.
4. The Postal and Other Telegraph Companies.
5. The Legal Status of the Telegraph Company.
6. The Principles of Wire Telegraphy.
7. Recent Developments in Wire and Wireless Message Transmission.

Lesson 1. The Departments of a Telegraph Company.*Introduction*

Did you ever notice a telegraph pole being replaced by a new one? Did you ever see a loose telegraph wire being put back in place? Who tends to such matters? The telegraph company, yes; but who in the company? The men who do this repair work all belong to one department of the company. What is the department called? Name some of the jobs which are handled by the Plant Department. (See page 17.) What sort of training must men have who direct this work? If you wanted to work in this department of the company, what would you have to study? What does a telegraph engineer have to do?

A messenger takes in money for collect telegrams and for errand service, and sometimes for paid messages. To whom does he turn over the money? Thousands of messengers are taking in money in small amounts all over the country every day in the year. Because so much money is collected in small amounts in so many telegraph offices, a very careful check must be kept of the business of each telegraph office. How does a big organization manage this checking of business transactions? What is such a department called? (See page 17.) What records from your local office go to the Accounting Department? If you do not know, the manager of your office will be glad to tell you. What would you have to learn if you wished to change to the Accounting Department? Which employee in a local office does work which is closely connected with that of the Accounting Department at division headquarters?

What are some of the jobs in your department? What other work is done by your office besides accepting and delivering telegrams? What department at division headquarters has supervision over offices such as the one in which you are employed? What are some of the things which you should learn to do for promotion in your office? What are some of the best jobs in the department, jobs to which it would be worth your while to work up?

What is the most important work of a telegraph company—the only reason for the existence of a telegraph company? What department in the division headquarters has charge of this work? What are some of the other duties of this department? (See page 12.) What is the most helpful thing you could learn that would give you an opening in the Traffic Department? Can you become a manager of any office without being able to do the work of an operator? What opportunity does the company offer you to learn Morse operating? Why does the company do this? Is it to your interest, as well as to the interest of the company, that you become an operator?

Questions for Discussion

1. A business with such a large organization and so many departments has work for people with many different interests and abilities. Which department interests you most?
2. How can you work toward the position you wish in that department?
3. If you are working as a messenger and are interested in the work of the Traffic Department, would it be worth your while to seek the assistance of your manager?
4. Why is a manager always willing to help an employee who is studying for promotion in his own department, or even for transfer to another department?
5. Why is it that doing your own job well is the biggest help for promotion, even to an entirely different kind of work?

Lesson 2. The Geographic Organization of a Telegraph Company.

Introduction

We learned in the last lesson (Departments of a Telegraph Company) that the work of a telegraph company was performed by four large departments. Each division of a telegraph company has these four departments, and we learned something about the kind of work which each department performs. We have now to learn about the divisions of a telegraph company and why they are necessary.

You have all heard of the “home office” or “headquarters” of the Western Union Telegraph Company in New York. What is meant by the expression “home office?” Why is a home office necessary?

Suppose during a storm the line gets out of order somewhere between Laramie and Cheyenne in Wyoming or between Marysville and Live Oak in California. Why should not the home office in New York be called upon to attend to the matter of sending out men to locate and repair the damage?

- How many thousands of Western Union Telegraph Company offices are there in the United States? How far is it from New York to San Diego, California; to Bellingham, Washington; to Key West, Florida? Why could not one office supervise the work of all these offices?

To supervise closely the work of thousands of large and small offices throughout the country would be an impossible task for any one office, for most of them would be several thousands of miles from that office. But the work of a telegraph company, coming into so many thousands of offices and being handled by so many thousands of employees, requires the closest kind of supervision and the most careful management.

In order that the work of directing and supervising may be done carefully and thoroughly, the company divides the country into eight geographic divisions. Each division has its own headquarters office with officers in charge of each of the four departments. Many of the divisions are so large and do so much business that they, in turn, are divided again into districts. And besides the districts, there are in each division certain important cities which have offices independent of the district. The managers of these offices report not to the district offices but directly to the division offices. The city and district officers are held responsible for the work in their territory by the officers in the division headquarters. The officers in charge of the four departments in each division are, in turn, held responsible for the work under them by the vice-presidents in charge of the corresponding departments in the home office.

Over all the departments in the home office, unifying the company into a single great organization, stands the President, the Executive Committee, and the Board of Directors. The Board of Directors appoints its Executive Committee and the President. It is elected by the stockholders, who are the owners of the company.

Such, in brief, is the organization of the company for which you are working, the company of which you form an important part, especially since it allows you to share in its earnings every year in addition to paying you for your services. Such is the organization of your company, the company which some of you will some day surely help to manage, and about which you should, therefore, know a great deal.

Questions for Discussion

1. What are the advantages to an employee of knowing about the organization of the company of which he is a part?
2. Why should an employee understand the organization and the work of his department? Would such knowledge tend to make his promotion more rapid, provided he was doing his own job well?
3. Discuss some of the ways in which the work of one department of a telegraph company is influenced by the work of all the other departments.
4. If your department does its work poorly, how does it affect the work of the other departments?

Lesson 3. The Relative Importance of the Telegraph.*Introduction*

How many methods of long-distance communication (over 400 miles, for example) can you name? Group them in the order of widest use, placing the most used method first, the next second, and so on. Where does the telegraph stand in the list? Make a similar list, placing the least expensive method first, the next expensive second, etc. Where does the telegraph stand in this list? If you take away "mail" from the top of each list and think only of communication by the use of electricity, where does the telegraph stand in each list? What connection is there between least cost and widest use? Why, then, is the mail not always used?

Questions for Discussion

1. Why is the telephone used in preference to the telegraph for house-to-house communication? State at least two reasons.
2. Why is the telegraph less expensive than the telephone in long-distance communication?
3. What is the chief use of the radiotelegraph? Why is it not used for the purposes for which a telegraph is used?
4. How are other methods of message transmission sometimes used as aids to telegraphy?

5. State some of the services performed by a telegraph company which are not performed by telephone or cable companies. (See page 123.) Why is it that telephone and cable companies do not perform these services?
6. What reasons have employees of telegraph companies to be proud of their work?

Lesson 4. The Economic Importance of the Telegraph.

Introduction

Most of us will agree with the man who said, "Of all inventions, the Alphabet and Printing Press alone excepted, those which abridge distance have done the most for civilization." What does "abridging distance" mean?

In the olden days an important message could be carried 500 miles in about 50 hours by many relays of rapidly driven stage coaches. How long does it take a fast train to travel the same distance today? An automobile on good roads could carry the message the same distance in about how many hours? An aeroplane in a race against time would probably get there in how many hours?

In the space of a hundred years, distance has been shortened to less than one-tenth of its former extent by improvements in methods of transportation. Why is the saving of time in transportation so important?

Great as have been the inventions which have made transportation more rapid, even more astounding have been the inventions which have improved our methods of message transmission.

Have you ever seen a soldier or a boy scout wig-wagging a message with a flag in each hand? How far and how fast will the message travel? Did you ever notice the various colored light signals on railroads, each carrying one particular message? How far will the message go?

The curling smoke from the signal fire of the Indian carries its message only so far as the eye can see, and can be used only to say a limited number of things. The same is true of the huge drum or the flashing of light from the mirrors of the black savages of Africa. The sender of the message can say only a few words and his message is limited to the range of the human eye or ear.

There are more modern uses of these eye and ear methods of message transmission. Can you name some of them? (The list will include the whistle of the locomotive, the honk of the automobile horn, the clanging of the street car bell, traffic signals with arms, arrows,

or lights, semaphore and light signals used on railroads, and the beacon lights which guide or warn the vessels approaching our coasts.) Why is accuracy so important in these methods of message transmission?

Did you ever stretch a wire from the second story of two houses and pull a message or a note back and forth over the wire in a tin can, or make dots and dashes by using a light and a piece of cardboard? Those messages which you sent traveled only a few feet. Today they can be sent around the world in almost the same time it took you to write the message and pull it over the wire to its destination, or to make the dot and dash message with the light. It flows out over the telegraph wire and is at its destination in a few seconds. How much faster in minutes is the telegraph than the stage coach? How much faster than the mail train? How much faster than the aeroplane?

Why is time so very important in business? Is there any connection between saving time and saving money? The man who gets there first usually gets the money. The telegram gets his message there faster than the letter.

If there is a big flood or a fire and a city is in distress, the telegraph starts assistance to it immediately from the whole country. A manufacturer decides to reduce the price of his car \$200 on a certain day, but does not wish anybody to learn about the reduction before that time. How can he be sure that every dealer in the whole country will receive his instructions at almost the same hour? Why is this important from a business standpoint?

Questions for Discussion

1. The manager of a real estate firm writes a letter which contains important information and instructions to a number of his agents. Later he discovers additional facts which make it important that the instructions be changed before the agents can act upon them. What can he do to prevent his agents from taking action on the letter? Write a telegram which he might send, telling his agents to disregard the instructions in the letter which they will soon receive.
2. Can you mention other instances where the speed of the telegraphic message is of great importance in business?
3. If one can get in touch with a person a thousand miles distant by telephone quicker than by telegraph, why is it that the telegraph is used so much more frequently for long distance communication?
4. What two characteristics make the telegram a great money saver?

Lesson 5. The Telegraph in Business.*Introduction*

What is the cheapest and therefore the most widely used means of long-distance communication? Name some of the uses which business makes of the United States mail service. Many people use the telegraph only once or twice in a lifetime. What kind of messages do they send at these times? These are the only uses which thousands and thousands of people ever make of the telegraph, no matter whether they are in business or not. Why not use the mails, instead, for these purposes?

The only telegrams which many people receive are messages concerning death, marriage, birth, severe illness, and other unusual matters where speed and accuracy count more than anything else. So we have all come to feel that a telegram contains an important message, that it would be used only for an extremely important communication. In a hurry to catch a train, or to get to a theatre on time, you have often thrust a letter unopened into your pocket. Did you ever thrust an unopened telegram into your pocket?

In recent years the telegraph has come into much wider use in business communication, replacing communication by letter. Why do you suppose wide-awake business men have begun to use the telegraph in place of the letter? Because a telegram gets results, because it is always read, because it is a speedy messenger, business men often put it to unusual uses.

Questions for Discussion

1. Name some of the advantages of a telegram over an ordinary letter in collecting overdue accounts.
2. Give as many reasons as you can why it would be better to send out 1000 telegrams rather than 1000 letters to announce the opening of a new restaurant; to announce a special New Year's dinner. Could the restaurant owner write one telegram and have it sent to 1000 people? Compare the cost of the thousand telegrams with a thousand letters. Compare the probable results.
3. How might a department store make use of a large number of telegrams in announcing its January clearance sale? Why would this method of advertising be more effective than a circular letter?
4. How might a hotel use the telegraph with good results to attract guests during a bankers' convention?

5. An automobile firm recently sent out 45,000 night letters to its dealers all over the country, announcing a reduction in the price of the car to take effect upon receipt of the message. Why didn't the firm send out 45,000 letters instead?
6. Why should messengers and other junior employees of telegraph companies know of these unusual ways of using the telegraph in business?
7. See also suggestions under "The Telegraph in Business," page 124.

Lesson 6. Agreements.

Introduction

In our everyday business life we make many agreements, or bargains. Most people try to live up to their agreements, but once in a while some one breaks his promise, or tries to get out of living up to his bargain. Sometimes he is able to do this because the bargain was not made in the right way. An agreement or bargain which the law will enforce is called a contract.

Since people sometimes try to get out of living up to their agreements, it is important for all of us to know what is necessary to make an agreement or bargain binding upon those who enter into it. An agreement, in order to be binding, does not, except in a few cases, need to be in writing. Many agreements by word of mouth (oral agreements) are just as binding as written agreements, if they can be proved. Of course, it is much easier to prove a written agreement than an oral agreement, so a wise person sees to it that any agreement of much importance is put into writing and signed.

Besides written agreements and oral agreements, there are others which we enter into simply by our actions. For example, when we borrow our neighbor's hammer or saw without asking him for it, our action is the same as a promise to return the article to the owner. People sometimes think they have made an agreement which will bind the other person when they really have not. In order that an agreement shall be binding (enforceable) several things are necessary.

First, there must be a definite offer and an acceptance of that offer. For example, "I'll sell you this book for \$1.50." That is an offer. If you say, "All right, I'll take it," if you hand over the money, or if you take the book, you accept the offer.

Second, those making the agreement must be fit, or able to make it. The law will not allow some people to bind themselves by agreements, or if they do make business agreements, will not allow the other person to hold them to the agreements against their wills. An insane

person, for example, cannot make a binding agreement. More will be said about this in the next lesson.

Third, one of the persons must do something which he otherwise would not have to do, in return for what the other person offers or promises. For example, John's aunt promised that if he would live with her until he was twenty-two years old she would pay him five hundred dollars. If John lives with her until that date his aunt must pay him, for he has done something which he was not bound to do, relying upon her promise.

Fourth, the agreement must be to do something which is lawful. If the agreement is about something which is unlawful, neither person is bound by it. An agreement to steal money and then divide it would not be binding, neither would an agreement to prevent one person from marrying another, or an agreement to tell the contents of a certain telegram. It is right to break an agreement of that kind if one has been unfortunate enough to make it.

Fifth, the agreement must be made without misunderstanding, trickery, threat, or force. A points a pistol at B and says, "Sign this paper or I'll shoot you." B doesn't want that pistol to go off, so he signs an agreement to sell his new automobile for \$200. If B can prove that he was threatened, the agreement cannot be enforced against him.

If an agreement lacks any one of these five requirements the law will not hold a person to it. If an agreement satisfies all these requirements it is binding and is called a contract. A whole book could be written to explain and illustrate each of these five essentials of a binding agreement. It is very important that we should know what they are and something about them, for we all, at some time or other, make many agreements. These agreements are often very important to us. If they are not made properly and the other party can avoid them, it may cause us much loss.

Questions for Discussion

1. A says to B, "I'll sell you my lot on East 24th for \$500 cash." B accepts the offer, pays the money, and takes a receipt. A has in mind a lot on East 24th Avenue; B thinks he is buying a lot on East 24th Street, which he had been told belonged to A. When the papers are being drawn up B discovers that A is selling him a lot on East 24th Avenue, so he takes the case to court to try to get out of the agreement. What would you decide if you were the judge? Give your reasons.

2. A says to B, "I'll sell you my bicycle for \$18." B says, "I'll give you \$12." A says, "Not a cent under sixteen." B says, "I'll give fifteen." A says, "Sixteen or nothing." B turns to go, when A says, "Well, you can have it for the fifteen." B is angry and says, "I wouldn't take it at five, now." Was there really an offer and acceptance at fifteen dollars, which could be enforced? Why? If there is an offer and acceptance, of course B is bound to take the bicycle and pay \$15, if the agreement is enforceable in other respects.
3. John was smoking and it was having a bad effect on his health. One day his uncle made him the following proposition, "John, if you stop smoking from now until you are twenty-one, I'll hand you a check for five hundred dollars on your twenty-first birthday." John shook hands with him on the proposition, and lived up to the bargain for the three years until he became of age. On his twenty-first birthday he reminded his uncle of the bargain. Would John have a good case against his uncle if he had to go to court in an effort to collect the money? Give reasons for your answer.
4. Try to give an illustration, other than the one in the explanatory material, where a person makes an agreement simply by his actions.
5. Write an agreement between two people.
6. What is the agreement between you and the company for which you are working? What do you agree to do? What does the company agree to do?

Lesson 7. Contracts of Minors.

Introduction

We learned in the last lesson that a contract is an agreement or bargain which is binding upon those who make it. We also learned that some of the contracts of minors cannot be enforced against them.

A minor is anyone "under age" In all states boys are under age until they are twenty-one. In a few states girls are under age only until they are eighteen. When are girls no longer under age in your own state? When a person is no longer under age he is said to be "of age," or to have "attained his majority."

Minors make many contracts, some of which are very important. The law tries to protect a minor who makes a contract so that he may

not be imposed upon by older and more experienced persons. Knowing this, minors should, in case of need, ask the advice of some able and reliable person. The following examples show the protection the law gives minors in this regard.

A man by the name of Woltner advertised several bargains in bicycles. Henry Adams, a minor, wanted very much to own a bicycle, but had not been able to afford one. When visiting Woltner's shop he was persuaded to buy one of the bicycles for \$20.00. He paid \$5.00 down to hold the machine and promised to return the next morning with the balance. He learned later that the bicycle was worth little more than half the price. Henry returned to the shop and demanded the return of the five dollars. The shopkeeper had no choice but to return the money. The law was clearly against him. Even if Henry had paid the twenty dollars and had taken the bicycle home, he could have returned it later and demanded the return of his money. Why is this the case?

Since minors may avoid certain agreements with other persons, older people are often very reluctant to enter into agreements with minors. John Wilson, a minor, wished to buy a flashlight costing \$3.50. He agreed to pay \$1.50 down and the balance on the first of the month. The shop keeper refused to sell the flashlight except for cash, even though he knew the boy, saying that it was not a matter of personal feeling but of policy. Was he justified in that attitude? Why?

Minors often enter into contracts for food, lodging, clothes, and medical aid, either for themselves, or, if they are married, for their families. If a minor owes money for any of these things he must pay for them, provided they are really necessities and provided the charge has been reasonable. Of course, if a minor were furnished with sufficient food, lodging, clothing, and medical aid by his parents, he could not be held liable on a contract to buy additional food, clothing, etc.

A minor, who was attending school away from home, engaged a room at fifteen dollars per month for a term of five months. At the end of two weeks he found a better room for less money and moved. The first landlady could not hold him to his contract for the five months. She had furnished him a necessity (lodging) for two weeks, and could claim a reasonable payment for the service for that length of time, only.

You have seen that the law tries to protect minors in making contracts, as long as they are minors. Sometimes, however, a minor may enter into a contract which continues in force after he becomes of age. The contract may be avoided or it may be made binding after the

minor becomes of age. If he shows, by words or actions, that he wishes to avoid the contract, it is no longer binding upon him. If he shows by words or actions that he considers the contract binding, it is then just as binding as though he had made it after becoming of age.

If a minor negligently injures another person, or negligently damages the property of another person he is liable for damages just as an adult would be.

Questions and Problems

1. Name some other classes of people besides minors who, you think, should not always be held to their contracts.
2. In riding a bicycle through the streets, a messenger boy, seventeen years old, negligently injured a pedestrian. Is the messenger liable for damages? Why?
3. A, who was a minor, traded motorcycles with B, who was an adult. A later realized that he had the worst of the bargain. Can he compel B to trade back? Could B compel A to trade back if he so desired?
4. A minor borrowed \$35.00 with which to buy a suit of clothes. Under what circumstances can the man who loaned him the money compel him to repay it?
5. Will Demming, when he was eighteen, bought a large lot in a certain city, paying \$300 for it. For three years, or until he was twenty-one, he rented the lot for gardening purposes at \$30 a year. This rent money he used partly to pay the taxes on the lot. The remainder he placed in his savings account. When he became of age he wanted to move to another city. He therefore asked the man from whom he had purchased the lot to take it back and return him the \$300. Can he compel the man to return the \$300, even though he has made money on the lot?
6. Is there sometimes a moral obligation when there is no legal obligation to fulfill a contract?

Lesson 8. The Contract for Personal Service.

Introduction

There are many different kinds of contracts which are made in the daily conduct of business. They are alike in that they must all comply with the requirements of an enforceable agreement which you

learned in the lesson about Agreements. Contracts differ according to purpose, time, and subject. One contract may be to sell an article, another may be a contract to buy an article, and still another may be to trade one article for another. A contract may arise out of borrowing money and signing a note promising its repayment. A contract may be entered into by two people to become partners, another may be to carry a passenger or to transport freight, to transmit and deliver a telegram, to sell land, or to furnish board and lodging. The particular contract which we wish to discuss is the contract for personal service.

When one person agrees to work for another the agreement which they make is called a contract for personal service. The one who agrees to work is called the employee, the one who agrees to hire the worker is called the employer. You will remember that all the requirements of an enforceable agreement must be met.

1. There must be an offer and acceptance. When one applies for a job he offers to work. When the other person hires him the offer is accepted. The hours, wages, and length of service may be discussed and agreed upon, or they may be understood by both parties to the agreement. Many mistakes and misunderstandings occur in regard to these matters, because the two parties do not discuss them.

2. The parties must be able to make a contract. If a person who was drunk or insane made a contract to work, he would be able to avoid carrying out his promise, if he so desired. A contract to work is not a contract for necessities of life, so a minor who makes such a contract may legally avoid it, if he so desires. For example, if a minor has agreed to work on a certain job for a month he can quit at any time and his employer has no further claim against him. Of course, if a minor pursued such a course, without a good reason, he would soon find that nobody would hire him, for it costs an employer time and money to hire and "break in" a new employee.

3. One of the parties must do something which he otherwise would not have to do in return for the promise of the other party. In a contract for personal service, that is, a contract for work, the offer to work for another in return for the promise of the other party to pay the agreed wage satisfies this requirement.

4. The agreement must be to do something which is lawful. Some contracts for personal service might not be lawful. For example, an agreement to work for a month, assisting a bootlegger, would not be enforceable, because the purpose of the contract would be illegal.

5. The agreement must be made without mistake, trickery, threat, or force. If a person thought that he was being hired to drive a truck, when in reality he was hired to drive a team of horses, it would be a case of mistake or misunderstanding and there would be no agreement.

There may also be many different contracts for personal service. The fact that a person is holding a job, or working for another, means that the two have entered into an agreement in regard to the matter. That agreement may be either oral or in writing; but by the terms of the agreement each party promised to do certain things.

Questions for Discussion

1. You are working at a certain job. What did you, as employee, agree to do when you took the job? List the things you agreed to do in one, two, three order.
2. What did the company which hired you agree to do? List these promises also in one, two, three order.
3. Why are the promises made by an employee of a telegraph company much more important than those made by employees of many other companies?
4. Write a short contract in which A agrees to work for B as motorcycle messenger at the rate of \$4.00 per day. Try to state it in such a way that neither party will misunderstand any point. First say what A promises and then what B promises. Make out two copies. A is supposed to keep one copy and B the other.

Lesson 9. The Obligations of an Employee.

Introduction

When one person agrees to work for another he has certain rights in return for his work. The chief of these are the right to a wage and to safe, sanitary, and pleasant working conditions. In return for these rights the employee places himself under certain obligations. Since many thousands of young people work for others, it is important that they know something about their obligations. These obligations are the things their employers are entitled to receive from them.

First and foremost, perhaps, is the obligation or duty to do an honest day's work for an honest day's pay. That is the principal thing an employee agrees to do. There is a certain piece of work to be done and he agrees to do it. He agrees to do the whole job—not half of it.

Next, the employee agrees to show good faith. That is, he agrees to "play fair" with his employer, to work at all times for the best interests of the man or firm for which he is working. Any act which would hurt the business of the employer, or any act which would benefit a business rival at the expense of his employer, would be a failure to show good faith.

Third, the person who takes a job agrees to be honest in his dealings with his employer. This agreement is not usually put in writing nor even mentioned. It is taken for granted, but it is a very important part of the agreement between employer and employee.

Fourth, the employee is supposed to follow instructions. That means that he should do the things which he is told to do, in the way in which he is told to do them. Often an employee does not pay strict attention to instructions which are given him, and the result may be harmful to three parties: it always harms the employer because he is paying for good work and not getting it; it may harm a third party, through a delayed message, for example; and it always harms the employee, for the habit of negligence and inattention grows with surprising rapidity. A negligent or inattentive employee can seldom advance far with his company.

Fifth, the employee is supposed to work as long as he agreed to. If he agreed to work for one month or one year he should not quit before that time. Very often employees are hired for no definite time. However, in such cases the employee is supposed to give his employer a reasonable notice of his intention to quit.

Sixth, the employee is supposed to respect the property of his employer. This means that he should not mark up walls, throw books, or carelessly leave them lying about. It means that he should use tools and implements for the purposes for which they are intended. For example, a bench is made to sit on. Cutting initials in it makes it much less valuable. That is an illustration of not respecting the employer's property.

Questions for Discussion

1. A, a man 30 years of age, agreed to work for The Pacific Gas and Electric Company, for one year at \$125 per month. At the end of eight months A quit without good cause. The company was forced to hire another person at \$135 per month. Has the company a right to demand \$40 damages from A?
2. If A were sixteen, would the legal obligation be the same?

3. Suppose that the company had discharged A without cause at the end of eight months, has A any legal claim against the company? If A made no effort to get another job, has he a legal claim against the company? Suppose A was able to get another job at only \$115, does this alter his claim? If he was able to get another job at \$125, after being idle for two months, has he any legal claim against the company?

Lesson 10. The Obligations of the Employer.

Introduction

The last lesson dealt with the obligations of the employee, which is the same as saying with the rights of the employer. This lesson will take up the obligations of the employer, which are, of course, the rights of the one who is working for him.

When a firm engages an employee it agrees to certain very important things. One of these has to do with wages, that is, with the payment agreed upon for the service. Generally the law will consider the wage agreed upon as a just wage for the work done, though that is not always so in the case of wages paid to minors. Most concerns are just in this matter, but because a few are not some states have passed laws which say that the weekly wage of minors shall not be below a certain figure. The agreement of the employee was to give an honest day's work. For that the employer agrees to give an honest day's pay.

The next obligation of the employer is to provide a safe and sanitary place for his employees to work. This agreement is not put in writing, but it is understood just as well as the agreement of the employee to be honest with the man for whom he is working. Employers used to be so careless in this matter that in nearly every state working conditions are now regulated by law. Safe and sanitary working conditions are so important for workers, especially for young workers, that states felt they should take the matter into their own hands instead of leaving it to the judgment of employers. However, many firms recognize that it is one of their chief duties to provide for the comfort of their workers. So they go much farther than the state laws require and provide for their employees not only a safe and sanitary place in which to work, but also rest rooms, reading rooms, gymnasiums, shower baths, and many other conveniences. The firm for which you work probably provides many of these things. But there are other firms which are always ready to evade the law in

this matter, and so it is well for employees to find out what the laws in their own state are in regard to it. What commission regulates these matters in your state? How can you obtain a copy of their regulations?

Another obligation of the employer is that of compensating an employee who is injured in the performance of his duties. Here again, the state laws take a hand in the matter and require the firm to pay a certain part of the injured employee's wages during the time of his disability. Many firms go even farther than the law requires in discharging this obligation and pay their injured employees the whole or nearly the whole of their regular weekly wage during disability. These matters are regulated differently in each state. You should know the rules of your own state in regard to the matter. What commission regulates this matter in your state? How can you get a copy of these regulations?

There are other obligations of employers toward junior employees to which attention has been turned in recent years. One of these obligations is that of providing opportunity for their junior employees to study the business and work up in it as they are able. Another is in regard to schooling. Many junior employees have been forced to leave school in order to make a living for themselves or their families. The chances for rapid advancement and success are much better for one who has a good education than for one who has not. Some employers, realizing this need, have organized schools for their employees. Many states have felt that this opportunity should be given to all young employees and have passed laws requiring employers to allow their employees, between the ages of 14 and 18, to go to school during a part of their working day. Here again, many employers have gone farther than the laws of the state require, in paying their employees for the time spent in school. Often they, themselves, come into the school and talk to the students on important matters connected with their business; and when openings come they select the diligent student and good worker for promotion.

Questions for Discussion

1. A boy, 15 years old, agrees to work from 8 a.m. to 6 p.m., with one hour off at noon. Can the employer require such hours of him in this state?
2. A, while working for a firm, injured his hand on a splinter from the counter and had to have a finger amputated. What are the rights of A against his employer?

3. A telegraph messenger, while riding on a bicycle to deliver a message, fell and broke an arm. What are the obligations of the telegraph company?
4. Make a list of the things which your own company does for the benefit of its employees which it does not have to do.

EFFICIENCY AND PROMOTION GROUP

While the first group of lessons is based upon the assumption that the messenger should have a richer background of information about the occupation as a whole, this group is related more closely to the particular job.

The aim of these lessons is to make the messenger more efficient in the performance of his duties, thus increasing his value to the company and his chances for promotion.

In the lesson "Delivering a Telegram" the attention of the messenger is directed to the fact that the things he is doing are not so simple as they seem and that there is a right and a wrong way of doing them. Many additional lessons could profitably be based upon other tasks of the messenger.

The two lessons entitled "English" are intended to illustrate how training in oral and written English should be closely related to the general occupation and to the particular job.

LIST OF LESSONS

1. The Services of a Telegraph Company.
2. Classes of Domestic Service.
3. Domestic Word Count.
4. Delivering a Telegram.
5. The Lost Messenger (a Story).
6. The Journey of a Telegram.
7. Giving Additional Service.
8. English (Classes of Service).
9. English (Time Service).

ADDITIONAL SUGGESTED LESSONS

1. English. (Many lessons based on the bulletins, pamphlets, publicity material, and tariff book of the telegraph company).
2. Geography. (Many lessons on the location of countries, states and cities; time belts; location of Western Union and Postal trans-continental telegraph lines; terminal points and mid-ocean stations of Pacific, Atlantic, and South American cables).

3. Classes of Foreign Service. (See Tariff Book and Tariff Supplement No. 11).
4. Cable Count. (See Tariff Book and Tariff Supplement No. 11).
5. How to Enter a Business Office.
6. How to Make a Report.
7. Extra Words.
8. The Check of a Message.
9. Duties and Qualifications of a Receiving Clerk. (See page 39.)
10. Duties and Qualifications of a Delivery Clerk. (See page 66.)

Lesson 1. The Services of a Telegraph Company.

Introduction

A telegraph company exists for two purposes—to serve the public and to make money for its owners. Of course, the two react in many ways upon each other. We will not, in this lesson, discuss the money making purpose; we will leave it with the statement that a large and well organized telegraph company maintains many small offices which do not pay expenses, simply for the convenience of the public. Now let us consider carefully the other purpose, the main purpose of a telegraph company, that of serving the public.

In how many ways does a telegraph company serve the public? You are surely familiar with two of the services—the telegraph service and the messenger service. How many more are there? (See page 123.) Now let us consider each of these classes of service a little more thoroughly.

The Telegraph Service is not so limited as it once was. Did you know that for a good many years only one class of telegrams could be sent? That was the full-rate message, and the rate was very much fuller than it is now. This full-rate message is hurried to delivery, day or night, in the quickest possible time. It is used for rush messages where time is the most important consideration.

The public soon began to demand telegrams at reduced rates in cases where time was not so all-important, but where it was desired, nevertheless, to get a service faster than the mail. The telegraph service was consequently broadened to include night messages, day letters, and night letters, all at rates lower than for the day message. The day message rates are taken as the basis for figuring the rates on the other three. The night message charge, like the day message charge, is based upon the rate for ten words or less. The night letter and day letter charges are based upon the rate for fifty words or less.

The Messenger Service, too, is more complete than one would at first suppose. Everyone knows some of the services which the messenger performs. What is the most important service of the messenger in small towns as well as in large ones? Suppose a man wants an important letter delivered to someone in a distant part of town. How can he secure this service without waiting for the mail? Is this errand service performed in small towns as well as in larger towns and cities? How many different kinds of errands is a messenger called upon to perform?

There is one kind of errand service very seldom used in small towns, but which is very important in larger towns and cities. Can you tell what it is? What is meant by the call circuit service, or pick-up service?

The Money Transfer Service is another much used service of a telegraph company. By making use of this service one may transfer money to a person at almost any domestic or foreign point. Should one desire, he may include in the transfer telegram an order for goods, or any other business or personal communication. Many people do not know that by making the money transfer payable to the manager of the telegraph company the purchase and delivery of small articles at distant points may be arranged for. What are the various ways in which people transfer money to distant points?

The Time Service furnishes to subscribers clocks of various design, sizes, and styles at a small monthly rental. Why do people want Western Union clocks? Yes, they want them to tell time by, but there are other reasons. Name some of them. (See page 12.) How are Western Union clocks used for advertising purposes? Did you ever hear of the "time beat" service for jewelers? Why do jewelers use this service?

The Commercial News Service in various forms brings commercial news from all parts of the world to the office of the customer by messenger, private wire, or ticker, according to the locality and the requirements of the one arranging for the service. The information conveyed includes all kinds of market reports, reports on baseball and football games, automobile races, etc. Why does the company have a special service of this kind for commercial news? Why not handle the commercial news dispatches in the same manner as other messages? In a few of the larger cities of the country quotations of the prices of stocks, commodities, and other financial and commercial news is furnished by a stock ticker, which is placed in the offices of merchants, brokers, and other business men whose business makes it worth while to pay for such service.

Similar to the Telegraph Service and closely connected with it is the Cable Service. The telegraph company receives and delivers messages for the cable company. Like the day message, the fast regular cable message is used for communications of an urgent nature requiring quick transmission and delivery. The deferred half-rate cable message is used for communications of a less urgent nature. The cable letter is used for business and social communications which are not urgent but which should not be subject to the delay of oversea mail. The weekend letter is similar to the cable letter. It may be filed up to midnight Saturday for delivery the following Monday morning.

In what places does most of the cable business originate? Why is it necessary that the telegraph company should coöperate?

Questions for Discussion

1. The telegraph company delivers most telegrams free of charge. Under what circumstances does the company make an extra charge for delivery?
2. List the ways in which a telegram may reach the hands of the addressee. Under what circumstances is each of these ways used?
3. Give a number of reasons why the errand service is important to the company. Why is it a good advertisement for the company?
4. Why can the company afford to pay a messenger for pick-up work and still give that service free of charge to the sender?
5. Why should every messenger know about the call circuit service of the company and be able to describe its advantages?
6. Tell of some of the advantages of transferring money by telegraph in preference to other methods.
7. Explain just how money is transferred by telegraph.
8. What services does the Western Union give free of charge with its time service? Why is it good business to give free service of this kind?
9. What types of business in your community are especially interested in the commercial news dispatches?
10. If there are no stock tickers in your community, how do those interested get the commercial news which they desire? How is the baseball news furnished by the telegraph company in your community?

11. Which services does your company perform which are not performed by other telegraph companies?
12. Can you think of other services which your company might profitably offer the public? Someone had to think of those which are now offered.

Lesson 2. Classes of Domestic Service.

Introduction

In the first lesson we learned about the many services which a telegraph company performs. The most important of the services is, of course, transmitting domestic messages. Domestic messages are messages to points in the United States, Canada, Alaska, and Mexico. In this lesson we will take up more in detail the various classes of domestic service. Many patrons of the telegraph company do not know of these different classes of service. Messengers could often be of greater assistance to patrons and to the company if they understood clearly the distinction between these classes.

Everyone handling the message should know at a glance what class of service the message should receive. To save time and space each class of service is given a certain designation or abbreviation. The designation for a full-rate telegram is *Black*, but it is not written. The omission of the designation indicates that the message is a full-rate telegram. All other designations are written. The table on page 134 shows the classes of domestic service, the designation of each, and other information.

For the sake of completeness and for the purposes of reference, all classes of domestic messages have been included in this table. Messengers and other junior employees of telegraph companies should pay particular attention to the first five on the list, also to DH and CAK messages, and to money messages. Why is this true? Are messengers apt to come in contact with persons sending these classes of messages more frequently than with persons sending the other classes? Which of the messages in this outline are delivered regularly by messengers?

Mention some cases in which a knowledge of the facts in this outline would be helpful to a messenger.

Questions for Discussion

1. What are the eight languages in which a telegram may be sent?
2. Under what circumstances would a knowledge of Spanish be of benefit to a messenger, to a receiving clerk, to a manager?

3. May a person file a night letter in the day time? Will it be delivered any more promptly?
4. In which of the first four classes of telegrams is code and cipher language not permissible?
5. Which classes of messages in the outline on page 135 always originate with officers or employees of the telegraph company?
6. Which classes of messages always originate with people not connected with the telegraph company? Why do you consider it important to be fully informed about these classes of messages?
7. If you were acting as counter clerk, how would you know whether a person filing a message should be allowed the DH privilege? If you do not know the answer to this question, you can find the answer to it and many other questions in the Tariff Book. This book is the textbook of the telegraph business.

Lesson 3. Domestic Word Count.

Introduction

Counting the words in a telegram is not so easy as it sounds, for there are many rules to be remembered. Yet the word count is very important, for the company bases its charges upon a certain number of words to be transmitted a certain distance. What circumstances are there in which it is of advantage to messengers to know how to count the words in a telegram?

Certain messages are not counted before transmission, namely, service messages, wire messages, supervisors' messages, and CND messages. DH and CAK messages are counted only when they are to be transmitted over lines to which the privilege of free transmission does not extend. All other messages are counted.

The address and signature are not counted in a domestic message, unless they contain extra words. Extra words in the address and signature are counted unless they are for the assistance of the telegraph company. Instructions in the address regarding telephonic delivery is an illustration of extra words for the assistance of the telegraph company.

In the body of the message everything is counted. There are certain important rules which govern the count.

In order that we may understand more clearly the subject of this lesson, five definitions are necessary:

There are two methods of counting words, one applying to telegrams, the other to cables. Domestic count is applied to all domestic messages, that is, to telegraphic messages destined to points in the United States, Canada, Alaska, and Mexico. Cable count is applied to cable, radio, and Marconi messages. There are three kinds of words, exclusive of figures and characters, which may be used in a telegram or cablegram. First, there is the plain (dictionary) word in any of the eight admitted languages. Second, there is the code word which cannot be found in a dictionary, but which is made up of a pronounceable combination of letters in one of the eight languages (*adilo*, *achti*). Cipher words are combinations of letters which cannot be pronounced (*cssdel*, *fdmmu*). Code and cipher words are used for two purposes—to conceal the real meaning of the message, and to say many words in one. For example, *achti* might mean *We have purchased them for your account*, and *cssdel* might mean *Let no one learn of this matter*.

Dictionary words in any one of the eight admitted languages are counted as one word each, with certain exceptions, no matter what their length. Sometimes, however, two words are counted as one. Illustrations of these are *parcel post*, *Western Union*, *cannot*, *can't*, *day letter*, *night letter*; also names of countries, states, and cities, as *North Dakota*; also certain abbreviations, such as *a.m.*, *p.m.*, *f.o.b.*, and *c.o.d.*

Code and cipher words are counted at the rate of one word for each five letters or fraction of five letters. For example, *cozf* is one word, *cemolin* is two words.

Illegal combinations, such as *bando* for *B. and O.*, *firstclass* for *first class*, are counted according to the number of words which they represent.

Figures, decimal points, punctuation marks, and bars of division are counted as one word each. According to this rule, *14* would be counted as two words, while *fourteen* is only one; *2.8* is counted as three words, etc.

Symbols such as *%*, *¢*, *#*, are counted according to the number of words they represent. The company prefers not to transmit symbols because of the possibility of error.

Further instructions regarding domestic word count can be found on page 41 of this bulletin, and a complete and classified statement of all rules, in the *Tariff Book* of the telegraph company.

Questions for Discussion

1. Would you count any of the words in the addresses given below?
John H. Towner or A. B. Johnson, Merced, Cal.
Mr. and Mrs. H. W. Anderson, Phone Main 482, Ely, Nevada.
2. How many words should be charged for in the following?
How aryu.
Havyu anyone.
The billading is allright.
3. Count the following. Are they in one of the admitted languages?
Partimos esta tarde a las dos en el vapor Victoria.
Semo selone a laida fer domestu.
4. Why does the company charge for code and cipher words on the basis of five letters to each word, when they would count a German word containing fifteen letters as only one word?

Lesson 4. Delivering a Telegram.*Introduction*

Delivering telegrams is the most important job of a messenger. Like many other jobs for which we are paid, there is a right way of doing it and a wrong way. If you have not thought of this before, a single illustration will convince you that it is true. Would you, for example, slap a telegram roughly and carelessly into the outstretched hand of an addressee with the impolite remark, "Telegram for you, old top, sign up," or would you do it in a more gentlemanly way? You see, there are two ways of doing it, one wrong, the other right.

When a messenger delivers a telegram at a private house he does many more things than he knows he does, because he is not thinking of his actions. Most of us do many things incorrectly simply because we have never studied just what we do or how we should do it.

To help you think what it means to deliver a telegram, write two lists, one containing all the things a messenger brings, and the other just what he does. You will find the lists below, but don't look at them until you have made your own lists. Then compare your lists with the ones below, and correct either one or the other, or both. After doing this, fill in the third column, telling *how* the messenger should do what he does.

<i>What the messenger brings.</i>	<i>What the messenger does.</i>	<i>How the messenger should do each of these things.</i>
A message. A delivery sheet. A pencil. Delivery notices. A rate sheet. Telegraph blanks. A bicycle. A cap. A uniform. The telegraph company.	Leaves his bicycle. Goes to the door. Rings the bell. Waits. Removes cap. Gets out telegram. Gets out pencil. Gets out delivery sheet. Greets person (or leaves notice). Asks necessary questions. Presents telegram. Presents delivery sheet. Presents pencil. Asks necessary questions. Receives back delivery sheet. Receives back pencil. Replaces delivery sheet. Replaces pencil. Replaces cap. Departs.	

Questions for Discussion

1. How should the messenger carry the messages and deliver them to guard against loss? To keep them clean and neat?
2. Should he carry a pencil with a dull or broken point? How and when should he sharpen it? Is there a wasteful way of sharpening a pencil? Many firms tell their employees just how many turns they may give the pencil sharpener.
3. Why does the messenger carry a delivery sheet? Why is it important?
4. Why should the messenger leave a notice of attempted delivery?
5. Why should messengers carry a supply of telegraph blanks?
6. What use do messengers make of a rate sheet?
7. Why do we call attention to the fact that a messenger brings a uniform with him when he delivers a telegram?
8. What is meant when we say that the messenger brings the Western Union when he delivers a message? In what respect is he the company?
9. How and where should the messenger leave his bicycle? What difference does it make if he drops it on the lawn or on the sidewalk?
10. What difference does it make whether the messenger cuts across the lawn or follows the walk to the door?

11. What is the right way to ring the door bell, and greet the person?
12. What should the messenger say after greeting the person answering the door?
13. What should he say and do if the addressee is not in, or has moved, or the address is incorrect?
14. How should he present the telegram, the delivery sheet, and the pencil most conveniently to the one taking the telegram? What should he do with his cap?
15. How should he take back the delivery sheet and the pencil? What if the person absent-mindedly forgets to return the pencil? What if the person refuses to sign the delivery sheet?
16. How should the messenger go about getting a reply in case it is desired? What should he do and say in case it is refused?
17. How should the messenger make his departure?

Lesson 5. The Lost Messenger.

Promptly at eight o'clock the Supervisor called Messenger 145 to his desk and addressed him as follows, "Here is a letter for Senator J. B. Hartford, 1348 West Boulevard. It is important that he receive it as soon as possible. You ought to get there in fifteen minutes on your motorcycle. Report to me personally when you return; I'll be at my desk until nine o'clock."

Nine o'clock came and Messenger 145 had not returned. The Supervisor, due at an important conference, delayed as long as he dared. The letter was far more important than Messenger 145 imagined, and the Supervisor wanted to be sure that it had reached the hands of the Senator.

Returning from the conference shortly before noon, the Supervisor learned to his amazement that Messenger 145 had not yet been heard from. Telephonic communication was badly disorganized on account of the storm which was raging, and the Supervisor could not get connections with the home of the Senator or with that of the messenger. None of the other messengers had seen him on their various routes through town. Messenger 145 was a new recruit, having joined the force only the week before, so the Supervisor was decidedly worried over his failure to return. What could have happened to him? Had there been some accident? But that was hardly probable, since the Western Union tag on the messenger's cap would most certainly have led to an immediate report of any accident.

The Supervisor took a great interest in the success and welfare of "his boys" as he liked to call the messengers on his force. As

twelve o'clock, two o'clock, three o'clock came and still no word from the lost messenger, the face of the Supervisor wore an increasingly worried expression. Then, at three forty-five, just as the Supervisor was preparing to enlist the aid of the Police Department in a city-wide search, in strode mud-bespattered Messenger 145 and made his way directly to the desk of the Supervisor. "Well, I delivered that letter to the Senator; here's his signature," was his laconic greeting, as he removed his cap and took the blank from inside it. "And here's the fee he insisted on paying me for the delivery," continued Messenger 145, producing a crisp but badly wrinkled fifty-dollar bill from his pocket and laying that, too, before the Supervisor. Now let us listen from every nearby desk while Messenger 145 makes his report of the delivery of one letter, a whole day's work.

"I went to 1348 West Boulevard as fast as the jam downtown and the speed laws would let me, and the fellow who came to the door told me that the Senator had left in a taxi about an hour before to go to Holtville to see C. W. Johns.

"I tried to 'phone you but couldn't get the connection—a lot of the wires were down, they said. I thought I'd be a 'go-getter' and follow the Senator to Holtville on my own hook; you know you told me the letter was important, and it was only thirty miles down there.

(Do you think he made the right decision, under the circumstances, or should he have returned to the office? Give the arguments for and against his action.)

"So I set out right away for Holtville," continued Messenger 145. "When I got there I found the address of C. W. Johns all right, but would you believe it, that human-flea—the Senator, I mean—had gone on by train to Carden, forty miles farther. He left just twenty minutes before the old motorbike and I arrived. I made up my mind to catch that Senator if I had to follow him clear across the state."

(Should the messenger have turned back? Remember that he was thirty miles off his route, and planning to go forty miles farther.)

"The road to Holtville was not very good, and I made no speed that far, but from Holtville to Carden the road was good, no detours to make, and we burned it up. I was going along at about thirty-five miles per when I suddenly decided to try to overtake the Senator's train and deliver the letter to him before he could get away again. The train had a head start of twenty minutes, and I knew it would not go slower than thirty-five miles an hour; but it was worth trying. I won't tell you how fast I traveled after that train, because it was some few miles past the speed limit."

“Five miles this side of Carden I overtook that train. Then just as I had to slow down to enter the town, my gasoline gave out. I wheeled the machine to a nearby garage and inquired the way to the railroad station. I set out on the run, for it was several blocks away. But I made it in time! As the passengers came off I stood by the exit calling, ‘Message for Senator Hartford! Message for Senator Hartford!’ Pretty soon he came up and I handed him the letter.”

“‘Well, young man,’ he said, while he was signing the receipt, ‘you look as if you had been traveling.’ I told him that I had followed him from his home to Holtville, and from Holtville to Carden, overtaking the train, and waiting for him at the station. While I was talking the Senator had opened the letter and glanced at it. The charges marked on the receipt were two dollars, but he insisted on giving me this bill. He said it was well worth fifty dollars to him, and a lot of things like that.”

“I took time to get my lunch and gasoline for my motorcycle, then started back, and here I am.”

The Supervisor had listened without a word to this report. When Messenger 145 had finished his story, he said, “I’m glad you got back safely, Jack. Tomorrow is the last day of the month—take a vacation and get a good rest. Report to me at eight o’clock on the first and we’ll talk over your absence.” Then he filed the receipt containing the Senator’s signature, and locked the bill in his desk.

What do you think happened to Messenger 145 when he reported on the first, after his day off? Was he rewarded with a double salary for the month on account of “Valuable Service to the Company and to the State,” or was he given a severe reprimand for poor judgment and told to read the rules? Write your own final paragraph to the story.

Lesson 6. The Journey of a Telegram.

1. Mrs. Anderson comes into a branch office in Los Angeles to send a telegram to her daughter Mrs. Williams in San Francisco.
2. What clerk waits on her in the Los Angeles branch office? What questions does this clerk ask Mrs. Anderson?
3. To whom does this clerk take the message written by Mrs. Anderson?
4. Tell what happens from the time this latter clerk receives the message until it is on its way over the wire to San Francisco.

What happens in the main office in Los Angeles?

What becomes of the original message written by Mrs. Anderson?

5. When the message is received in the main office at San Francisco, trace in detail the steps in the subsequent procedure, assuming:
 - (a) That the message may be telephoned.
 - (b) That the message may be telephoned, but that the addressee is not at home.
 - (c) That the message may be telephoned, but that the addressee also wishes to get possession of the message.
 - (d) That the addressee is to pay the tolls and has (and has not) an account with the San Francisco office.
 - (e) That the addressee refuses to pay the tolls.
 - (f) That the message must be delivered by messenger; that the messenger does not find the addressee at home.
 - (g) That the address reads "Bosh St." (probably Bush Street).
6. What clerical work is made necessary by the message, both in Los Angeles and in San Francisco?

Lesson 7. Giving Additional Service.

1. The firm of Jordan and Barker called up one morning to ask the time. The wide-awake girl who answered the call and gave the desired information saw an opportunity to render additional service to her company. She told her supervisor that Jordan and Barker had called up and asked the correct time. The supervisor passed the information on to the Commercial Department. A representative of this department visited Jordan and Barker. This firm no longer finds it necessary to inquire the correct time. As a result of the alertness of the girl who answered their call, they now have a Western Union clock in their office. They get the correct time every hour—and the Western Union company has increased its business.
2. Can you recall other instances of girls rendering similar additional service?
3. Do you think that rendering additional service is connected in any way with rapid promotion?
4. A messenger was given four telegrams to deliver. Three were delivered without difficulty. On going to the address of the fourth, he found that the addressee had moved to another house two blocks off his route. What should he have done?

5. Delivery of the telegram would have meant additional effort, loss of time, and no more pay for the messenger. In what respects would it have resulted in a saving of expense to the company? Would it have benefitted anyone else?
6. Tell how his action in delivering the fourth telegram would benefit the person to whom the message was addressed.
7. Might his action also have benefitted the sender of the telegram? How?
8. The policy of hundreds of successful business houses has come to be "More and Better Service to our Patrons." This means service for which they receive no extra pay. The station where you get free air for your bicycle tires is one illustration of this policy. Name several other illustrations of this policy of more and better service.
9. How can you, as an employee of a telegraph company, render additional service to the public and the company?

Lesson 8. English.

Text reference: *The Telegraph, Its History and Present Development*, by the Western Union Telegraph Company.

Reading assignment: *Classes of Service*, pages 21-23.

Try to remember the following as you read:

- (a) The four classes of telegrams and how they differ.
- (b) The four classes of cablegrams and how they differ.
- (c) The different kinds of messenger service.

Production assignment:

- (a) You have just delivered a telegram which requires an answer. The lady writes the answer, which contains 20 words. She is going to send it as a full-rate day message. Suggest to her that unless it is very urgent she might like to send it as a night letter. Explain to her the night letter service and its advantages.
- (b) Tell a friend of yours who is not in the employ of the telegraph company how he can send a bunch of roses by messenger to his mother on her birthday. She lives in Denver and he is working in San Jose.

Lesson 9. English.

Text reference: *The Telegraph, Its History and Present Development*, by the Western Union Telegraph Company.

Reading assignment: Read carefully the article on pages 14 and 15, entitled "Standard Time."

Try to remember the following as you read:

- (a) The places where the Naval Observatory transmitting clocks are located.
- (b) When the time is transmitted.
- (c) How the time is transmitted.
- (d) How the rented and purchased clocks are connected to the master clocks to form a time circuit.
- (e) How the master clocks are regulated.
- (f) How and when the master clocks correct the rented clocks.

Production assignment:

- (a) A man to whom you are delivering a telegram in a downtown office asks you the time. Perhaps he should have a Western Union clock. Tell him how cheaply a clock can be rented, and suggest that you will have the manager get in touch with him.
- (b) The man asks you to explain the time service a little more fully. Tell him how the service is handled.

CITIZENSHIP GROUP

The first two groups take cognizance of the fact that the messenger is employed to discharge certain duties in a certain occupation. Group three looks upon the messenger as a junior citizen in a democracy, as one who will soon be called upon to assume the duties and responsibilities of adult citizenship.

The aim of this group of lessons is to show the messenger that he has certain duties and responsibilities as a junior citizen, and that the fact of his employment as a messenger enables him to discharge the duties and assume the responsibilities of citizenship in peculiar ways.

LIST OF LESSONS

1. The Meaning of Citizenship.
2. The Demands of Citizenship.
3. Preparation through Education.
4. Preparation through Physical Training.
5. Contribution through Work.
6. Contribution through Thrift.
7. Contribution through Coöperation.
8. Contribution through Participation.
9. The Meaning of Membership.

ADDITIONAL SUGGESTED LESSONS

1. Obedience to Law and Custom.
2. The Importance of Being a Producer.
3. Progress through Lawful and Orderly Change.
4. The Privileges of the Individual.
5. The Democracy of Labor.
6. The Duty to Vote.

Lesson 1. The Meaning of Citizenship.

1. The distinction between a citizen and a subject.
2. Why people prefer to be citizens rather than subjects.
3. Membership in a state compared with membership in a boys' baseball team.
4. Loyalty to a state compared with loyalty to a team.
5. Loyalty to the company a test of loyalty to the state.
6. What the company has done for its junior employees in fulfillment of its obligation to them and to the state.

Lesson 2. The Demands of Citizenship.

1. The demands of adult citizenship.
2. Why idlers, vagrants, or law-breakers are not good citizens.
3. The demands of junior citizenship.
4. The necessity for a trained mind, and a trained and healthy body.
5. What the state has done for the physical protection of its junior citizens.

Lesson 3. Preparation through Education.

1. Reasons why universal education is not essential to a monarchy.
2. Reasons why universal education is necessary to a democracy.
3. The percentage of illiterate people in our country and in our state.
4. What the state is endeavoring to do for the education of its junior citizens.
5. Going to school a duty to the state.
6. Why the state has the right to say how long a boy or girl should go to school.

Lesson 4. Preparation through Physical Training.

1. The necessity for physical fitness.
2. Why we are proud of muscular development.
3. Why a strong body used to be necessary.
4. Why a strong body is still necessary though primitive conditions have changed.
5. How the physical exercise of the messenger can become a great asset to him.

Lesson 5. Contribution through Work.

To contribute is to give with others for a common purpose.

1. Name some common purposes of citizens in a democracy.
2. Personal reasons for work.
3. Public reasons for work.
4. Why do we have homes for the poor?
5. How do people happen to find it necessary to go to homes for the poor?
6. Who clothes and feeds the people in these homes?
7. What other classes of people who cannot care for themselves must the public provide for?
8. Why should a rich man work?
9. Why do most criminals come from a class of people who do not work?
10. Name some of the ways in which junior employees of telegraph companies can contribute to the common good.

Lesson 6. Contribution through Thrift.

Thrift means economical management.

A thrifty person is one who is careful and saving in the management of his resources; one who is not wasteful; one who saves part of his income.

To save first and spend afterward is the only sure way to save.

1. Do you know how many thousands of boys and girls in your city have a savings account? How did they get their savings accounts?
2. Do you know of boys and girls in your city who have bought real estate or bonds with their savings? Why do they do this?
3. What provisions do the banks and the government make for saving small amounts at a time?
4. What reasons are there for not spending all we earn?
5. Do you know how much one should save out of a salary of fifteen dollars a week?
6. It is said that one who cannot save cannot succeed. Why is this true?
7. What is the effect of a thrifty young business man in the community?

Lesson 7. Contribution through Coöperation.

To coöperate means to work together.

There is no such thing in business, in pleasure, or in civic and national affairs as "playing a lone hand" or "going it alone." One would have to live alone on an unknown island of the sea in order to get along without help from others. Because there are so many all around us, the daily actions of each one have some influence upon the actions of the rest of us. If everyone were working against everyone else, you can imagine what condition of affairs would result. Very few of us would be able to do anything worth while for ourselves or for the community. So it is best for us and best for the community if we work with each other, instead of against each other. In fact, the only way a person can accomplish anything is by coöperating, by working with others. Even rivals in business coöperate—work together—in many ways.

1. Think of some ways in which your own company coöperates with rival companies. Why does the company do this?
2. Name some ways in which your company coöperates with the city, the state, and the nation.
3. Can you think of any ways in which nations themselves coöperate with other nations? Why do they do so?
4. In what ways can a messenger coöperate with the telegraph company?
5. In what ways can messengers coöperate with each other?
6. In what ways can messengers, as junior citizens, coöperate with their communities?

Lesson 8. Contribution through Participation.

Introduction

Do you know what it means to participate in anything? We speak of participation in a game, or a play, or in the affairs of a community, such as a city, or town. The first half of the word gives you the clue, doesn't it? And you know that to participate means to *take part* in what others are doing. People who are working or playing together are trying to get something done. They are trying to build a house, or win a game, perhaps. When we work with them we share in what they are doing and are partly responsible for what is done.

When we see people doing something, as, for example, eating candy or ice cream, playing a game of ball, or preparing for a trip into the country, do we prefer to take part in what they are doing, or stand aside and look on?

A game is a small thing. Only a few can play it at one time and place. A business is often a bigger thing in which many take part. A community (a place where people live together) is a much bigger thing, because all of us are in it. We all play a part in the community whether we know it or not.

In the matter of traffic regulations, how can we prevent accidents to ourselves and others; how can we prevent injury to property; how can we set an example for others to follow? In other words, how can we do something for the good of the community?

If any one of us, taking part in a game of baseball, should "lie down on the job" and let the other fellows do the work, what would happen to the game? Because there are so few people in the ball game, the "quitter" is found out almost at once. Why is it that in a community we don't discover the "quitters," the people who don't play their part, more quickly?

Because there are so many in a community and because it is so easy to let the other fellows play the community-game, we are all apt to shirk a little, to "lie down on the job," to try to "get by" without doing our part. In a game of ball we couldn't "get by." We would be marked as "quitters." In the community game we can "get by" generally without being noticed, but we are "quitters" just the same if we fail to play the game the best we know how.

Why is letting the other fellow do the work bad in a game? Why is it worse in business? Why is it worst of all in a community? Is it not true that if we are not "quitters" we will all try to play the community game the best we know how, just as we would if we were taking part in a championship ball game?

Questions for Discussion

1. What are some of the ways in which men and women participate in the affairs of their community?
2. What are some of the ways in which junior citizens can participate in the affairs of their community?
3. How will a study of the problems of citizenship help a junior citizen to become a better senior citizen?
4. What are the ways in which the problems of citizenship for employees of a telegraph company differ from the problems of boys engaged in raising chickens, for example?

Lesson 9. The Meaning of Membership.

A member is one of the persons in a family, firm, society, or community. Members have obligations and privileges.

1. You all know some of the things a member of the family is supposed to do. What are they?
2. Does a member of a firm have any duties similar to those of a member of a family?
3. A member of a club or society receives certain benefits and privileges. Name some of the things he ordinarily does in return for the benefits and privileges. In what way is a club or society similar to a family?
4. You and I, as members of a community, receive many benefits and enjoy many privileges. Name several of these. Which do you consider the most important? Which would you be willing to do without?

5. What are we supposed to do in return for the benefits and privileges of community life?
6. Where does the money for the family expenses come from? What is it used for?
7. What are some of the important items of expense for the community? Where does this money come from? How does the community get it? Who contributes for the junior citizens? What can junior citizens contribute?
8. Mention a few of the ways in which community expenses are often made higher than they should be? What are some of the ways in which junior citizens may improve these conditions? Is it to their own interest as workers and as citizens to do this?
9. How would you describe a good member of a family? Of a community? Of a telegraph company?

SAFETY, HEALTH, AND HYGIENE GROUP

The aim of this group is to emphasize the problems of safety, health, and hygiene, which are of particular importance when considered in connection with the messenger's job.

LIST OF LESSONS

1. Good Health as a Factor in Success.
2. The Value of a Neat Appearance.
3. The Importance of Proper Food.
4. How to Select a Good Meal.
5. The Human Walking Mechanism.
6. Care of the Feet.
7. Care of the Hands.
8. Care of the Teeth.
9. Sleep, Rest, and Recreation.
10. Forms of Recreation.
11. "Safety First!"

ADDITIONAL SUGGESTED LESSONS

1. Correct Posture for Cyclists.
2. Dangers of Over-exertion for Cyclists.
3. How to Walk.

Lesson 1. Good Health as a Factor in Success.

1. The importance of good health in the social world.
2. The importance of good health in the business world.
 - (a) In getting a job.
 - (b) In holding a job.
 - (c) In seeking promotion.
3. The importance of individual good health to the community.

Lesson 2. The Value of a Neat Appearance.

1. The meaning of a neat appearance in terms of:
 - (a) Clothing (suit, hat, shoes).
 - (b) Face.
 - (c) Hands.
 - (d) Hair.
 - (e) Postures.
 - (f) Bearing.
2. The importance of presenting a neat appearance.
 - (a) For your own sake.
 - (b) For the company.
 - (c) For the patrons of the company.

Lesson 3. The Importance of Proper Food.

1. The function of food.

“We do not live to eat, we eat to live.”
2. The effects of various foods.
3. Appropriate food for summer and for winter.
4. Appropriate food for pedestrians and cyclists, and for those who exercise regularly.

Lesson 4. How to Select a Good Meal.

1. The meaning of a balanced ration.
2. Proper combinations for breakfast, for the noon meal, and for the evening meal.
3. The relation of cost to nutritive values.

Lesson 5. The Human Walking Mechanism.

1. Diagram showing thigh bone, kneecap, shin bone and fibula, ankle bones, bones of the metatarsus (instep), and the phalanges, tendon of Achilles, anular ligament of the ankle, flexor and extensor muscles.
2. The function of each of these parts of the walking mechanism.

3. Weak arches.

Causes, indications, remedial exercises, and value of supports.

4. The tendon in the heel.

What causes trouble in this tendon, indications of trouble, and remedies.

5. Soreness of the muscles.

Causes of soreness, and how to treat it.

Lesson 6. Care of the Feet.

1. Shoes.

- (a) The effect of a shoe which is too large.
- (b) The effect of a shoe which is too small.
- (c) The effect of a shoe which is of improper shape.
- (d) The importance of "breaking in" new shoes.
- (e) The importance of proper lacing.
- (f) The effects of high heels.
- (g) The beneficial effect of oiling shoes in winter time.
- (h) The beneficial effect of sprinkling talcum powder or "foot ease" in the shoes.
- (i) Dangers in fitting the foot only when one is sitting.

2. Socks.

- (a) The importance of socks that fit properly. If too loose they wrinkle; if too tight they bind the feet.
- (b) Where a darn in a sock is apt to cause trouble.
- (c) Why socks with holes in them should not be worn.
- (d) The importance of frequent changes of socks.
- (e) The danger of colors which run.
- (f) Proper socks for pedestrians in winter and in summer.
- (g) Why the garters should not be too tight.

3. Hygiene of the feet.

- (a) The great importance of bathing the feet every morning or evening, especially when on messenger duty.
- (b) The proper treatment for perspiring feet.
- (c) The proper treatment for cold feet.
- (d) The cause and treatment of chilblains.

Lesson 7. Care of the Hands.

1. Effects of wind, cold, rain and sun on the hands.
 - (a) How to treat chapped hands.
 - (b) How to treat severe sunburn.
2. The importance of clean and well-kept hands for one who handles papers or messages of any kind.
3. The importance of clean hands in making a good impression upon employers and patrons.
4. The value executives place upon clean, well-kept hands.

Lesson 8. Care of the Teeth.

1. Proper dentifrices, tooth brushes, and dental flosses.
2. Proper methods of using these.
3. Importance of daily care of the teeth.
4. Causes of cavities and decay and the importance of a prompt visit to the dentist.
5. Importance of periodic inspection and cleaning of the teeth by a dentist.
6. The functions of the different kinds of teeth.
7. The relation of good teeth to good health.
8. Well-kept teeth as a factor in success.
9. Dental proverbs.

“He that fights his teeth’s decay,
Will live to bite another day.”

“A fool and his teeth are soon parted.”

“The early brush catches the germ.”

“A tooth in the gum is worth two in the plate.”

Lesson 9. Sleep, Rest, and Recreation.

1. The origin of the expression “asleep at the switch.” Why the man happened to be asleep at the switch.
2. Dangers to the public from messengers whose brains have been dulled by lack of sleep.
3. Results of the loss of sleep.
4. Why people must sleep.
5. Why people must have rest and recreation.

Lesson 10. Forms of Recreation.

1. Recreation is defined as "refreshment of the strength and spirits after toil."
2. Make as long a list as possible of the different forms of recreation in your city.
3. Classify the above list into two groups, placing in one group those forms of recreation which require effort, and in the other group those which do not require effort.
4. Many people either walk or ride a bicycle for recreation. Why are these forms of activity not recreation for a messenger?
5. If toil for one is recreation for another, what is the difference between toil and recreation?
6. Which forms of recreation are considered most beneficial for office workers, and which for outdoor workers?

Lesson 11. "Safety First!"

1. What is the most common traffic accident which you have seen? What is usually the cause of this accident? How could it have been avoided in most cases?
2. Name some of the important traffic regulations in force in your city. Endeavor to classify them under such headings as Passing, Turning, Slowing Down, Sounding the Horn, Stopping, Parking, Speeding, Lighting, Arm Signaling, Conduct in Accidents, etc.
3. Which of the above regulations should messengers on bicycles be careful to obey?
4. Which bureau of the Police Department is charged with enforcing traffic regulations? Do you know of any local traffic regulations which should be more rigidly enforced?
5. Are there any local traffic regulations which should be changed in the interests of pedestrians and bicyclists? Would a request to the proper officials, signed by all members of the messenger force, be effective in bringing about the desired change?
6. How can a messenger fulfill the obligations of a good citizen in the matter of traffic regulations?
7. Name as many reasons as possible why messengers, as good citizens, should know and obey traffic regulations, and promote the Safety First campaign.

LIST OF PUBLICATIONS OF THE DIVISION OF VOCATIONAL EDUCATION, UNIVERSITY OF CALIFORNIA

PART-TIME EDUCATION SERIES

Bulletin No. 1. Syllabus of an Introductory Course on Part-time Education. January, 1920. (Out of print.)

Lesson Plans and Reports for use in connection with the Introductory Course on Part-time Education. (Out of print.)

Leaflet No. 1. A First Reading List for Administrators and Teachers in Part-time Schools. August, 1920. (Out of print.)

Leaflet No. 2. The Work of Coördination in Part-time Education. November, 1920. (Out of print.)

Bulletin No. 2. An Analysis of Department Store Occupations for Juniors. December, 1920.

Bulletin No. 3. Coördination in Part-time Education. March, 1921. (A revision of Leaflet No. 2.)

Bulletin No. 4. An Analysis of the Work of Juniors in Banks. May, 1921.

Buletin No. 5. An Analysis of Clerical Positions for Juniors in Railway Transportation. August, 1921.

Leaflet No. 3. Selected Reading List for Administrators and Teachers in Part-time Schools. September, 1921.

Bulletin No. 6. Part-time and Continuation Schools Abroad—Reprints. November, 1921.

Bulletin No. 7. The Work of Juniors in the Telegraph Service. April, 1922.

Leaflet No. 4. Recreational Reading for Part-time and Continuation Schools. March, 1922.

Part-time News Notes No. 1. Three Months of Coördination in the Oakland Schools. November, 1920. (Out of print.)

Part-time News Notes No. 2. Progress in Part-time Education in Los Angeles. December, 1920. (Out of print.)

Part-time News Notes No. 3. The Work of the Director of Part-time Education. January, 1921.

Part-time Notes No. 4. The Application Blank for Enrollment in Part-time Schools. A Statistical Study. April, 1921. (Out of print.)

Part-time News Notes No. 5. Junior Employees in the Retail Drug Business. May, 1921. (Out of print.)

Part-time News Notes No. 6. Outline Course in Citizenship Training for Part-time Schools. September, 1921. (Out of print.)

Part-time News Notes No. 7. Items from Part-time Schools in California. February, 1922.



LIBRARY OF CONGRESS



0 029 898 137 3